

Irish Grassland Association

Members' Information Booklet

Summer Edition Issue No. 39

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

Special focus on fodder options and grassland management



CORPORATE MEMBERS 2018



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CORPORATE MEMBERS 2018



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Irish Grassland Association Editorial



Rosalyn Drew
IGA Honorary Editor
and Nitrofert Ltd.

Dear Member,

What an extraordinary year this has been so far weather wise! From the wild hurricanes last October to the big snow in March to the present scorching sunshine and drought leading to further potential fodder problems. These weather extremes have made conditions for farming very difficult with each bringing their own set of challenges that farmers must try and overcome. It has surely been a testing time but as with everything it will pass and in the meantime we must simply get on with it.

In responding to these weather related challenges, and in planning for the longterm, this issue of the newsletter focuses on measures the grassland farmer can take to prevent possible fodder shortages next winter. Writers such as Matt Ryan, Joe Patton and Mary McEvoy cover various areas that farmers could consider should their circumstances allow. Also in our special focus section Charles Chevasse, vet with Zoetis Ireland discusses the emerging animal health problem of ivermectin resistance.

In our first section on IGA events, you can read about our hugely successful grazing infrastructure, beef and sheep events held

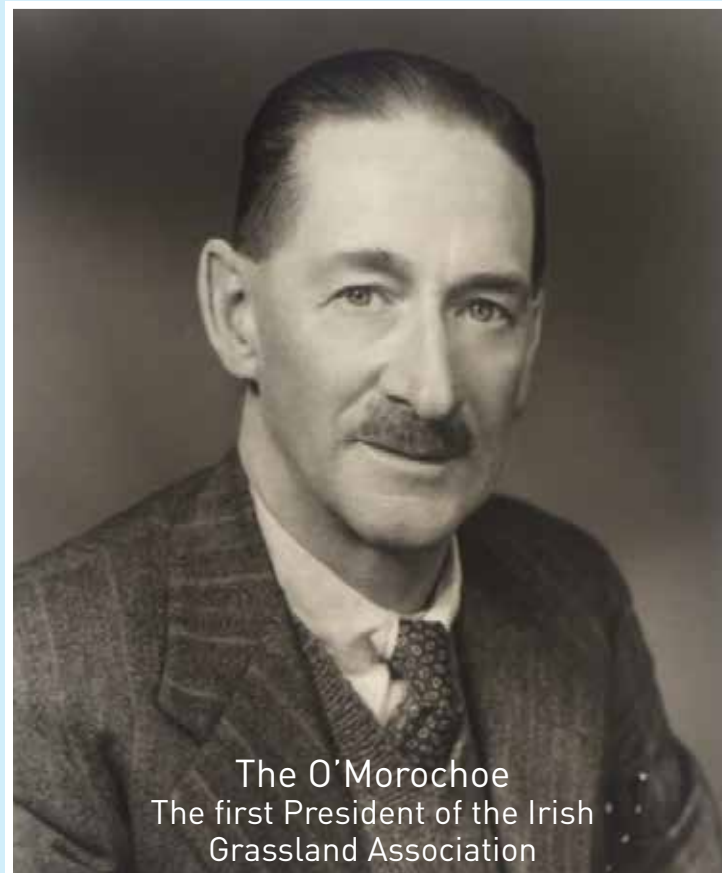
in May. All of which covered topical issues by excellent speakers in the grass and drystock sectors. Also in this section winners of two IGA student bursary awards give interesting reports on their trips to various conferences in Europe and the opportunity that this bursary has afforded those involved in agricultural research. Emer Kennedy of Teagasc gives a taster of what students can expect at the upcoming student conference this October in Athenry. Finally, don’t forget to book your tickets with Maura for this years’ Dairy Summer Tour. As always this immensely popular event has two excellent farms to visit which will continue the theme from last Januarys’ Dairy Conference exploring different ways on how to achieve a high profit and high return on investment in dairying.

In section 2, we wave a fond farewell and thank Dwayne Shiels sheep contributor to our Year in my Wellies feature for his wonderful articles over the past year. Dwayne always kept readers up to speed on his sheep system and we look forward to welcoming his predecessor in our winter edition.

As the school holidays are now upon us, Alma Jordan of AgriKids has kindly contributed a timely article for our health and safety section on keeping our children safe on the farm. As adults we must not be complacent about the hidden dangers lurking on every farm and we cannot assume that children are aware or understand these dangers. Alma gives us some simple advice and steps that adults can follow on how to get the message of danger and where it lies on the farm to younger folk.

Finally, the IGA Annual AGM takes place this September in the Horse & Jockey, Thurles. IGA Annual Membership will also be deducted in September. Take care and enjoy the rest of your summer.

IGA Archives



The O'Morochoe
The first President of the Irish
Grassland Association

As you were made aware in our last edition, The Irish Grassland Association is updating its archives, including the compilation of short biographies on all past presidents of the association.

There are still a couple of gaps in the information on some of the early presidents and information is sought on them. Specifically it is proving difficult to track down relatives or associates of O'Grady, who served as IGA president in 1955/56. He may be Darby O'Grady who farmed at Bruff in Limerick. Likewise there are blanks in biographical details for William Mitchell, a Leixlip farmer (1950/51). We are also missing details for WA Smith, who worked in the Agricultural Institute (1956/57). Dr. Larry O' Moore also worked in An Foras Taluntais and was IGA president during 1960/61 and more information is sought on his career.

The IGA presidents list is a 'Who's Who' of Irish agriculture. It includes such luminaries as Tom Walsh, Dan Browne, Matt Dempsey and Padraig Walshe.

The first president was the titular head of the O'Morochoe clan, The O' Morchoe. Arthur O' Morchoe served in the British army before returning to farm in Wexford. He served for three terms from 1946 to 1949, the only president to hold the office for more than one year.

Uniquely, ER and John Richards-Orpen, father and son, served as IGA presidents, in 1951/52 and 1961/62 respectively. The hope is that a full biography of all of the past IGA presidents will be available for publication on our website by next Autumn.



Date set for the 2018 Irish Grassland Association Annual General Meeting

Maura Callery,
Office Manager
Irish Grassland Association



The 2018 Irish Grassland Association (IGA) Annual General Meeting will take place on Thursday 6th September at the Horse and Jockey Hotel, Tipperary at 10.30am sharp. All members of the Irish Grassland Association are entitled to register to attend this event. It is an opportunity to see how the Irish Grassland Association operates. A roundup of the year's activities will be presented by the outgoing President Jan Jensma and we will also welcome the new incoming President Ciaran Lynch into office. Each year a number of seats on our council can become available to be filled through election on foot of existing council members terms expiring. All members of the Irish Grassland Association are eligible to be nominated for election. If you wish to put your name forward this year, then please contact me to express your interest on (087) 9626483 or email secretary@irishgrassland.com. Constitutionally we need to receive two supporting nominations for you in writing from two current Irish Grassland Association members before the Annual General Meeting. This year, that deadline is 2pm on Wednesday the 1st August 2018.

This current term with strong leadership from our outgoing President Jan Jensma and tremendous teamwork from our Council, has led to a hugely successful year for the Irish Grassland Association. I would like to take this opportunity on behalf of the President and Council to thank everyone involved in running our events, our host families and our sponsors. We would also like to thank you, our loyal farming and corporate members for coming to these events in such overwhelming numbers. We look forward to meeting you all very soon again.

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

Please email our office, secretary@irishgrassland.com by 2pm on Wednesday the 1st August 2018 if you wish to attend.



IGA President Jan Jensma and Tom Hennessy Terra Services (event sponsors) making a presentation to host farmer Billy Gilmore

Grazing Infrastructure Event Review

Mary McEvoy,
IGA Council member
& Germinal Seeds



A large crowd attended our event on grazing infrastructure outside Tuam, Co. Galway. The event was held on the farm of Billy Gilmore and sponsored by Terra Services. Wet weather in the run up to the event meant ground conditions were less than ideal but none the less a crowd in excess of 130 turned up on the day. Adam Woods of the IGA and IFJ was MC on the day.

Billy Gilmore is a well-known former participant in the BETTER Beef Farm program. Billy and his son Martin farm in partnership in Cortoon, outside Tuam in Co. Galway. Billy farms just over 55 hectares which is fragmented into 11 parcels. It comprises of owned and rented lands which are predominately relatively dry, however approximately 20ha could be described as heavy and liable to some flooding in winter/spring. Billy's advisor Gabriel Trayers of Teagasc described how, in the past 2 years the farm has changed from suckler cows and selling weanlings to contract rearing heifers for a local dairy farmer and the Newford herd in Athenry. This year there will be 116 yearlings reared with another 26-30 coming in May. Billy also has a sheep enterprise, lambing 160 ewes this spring. The farm stocking rate has increased by over 52% since 2009, from 1.22 LU/ha to 2.0 LU/ha today. By increasing the stocking rate and growing more grass Billy was able to reduce the amount of land he rents, dropping 48 acres while still maintain farm output (Table 1). Since 2009 gross output has

increased from €794/ha to €1362/ha (+72%) today with a corresponding increase in gross margin from €543/ha to €996/ha (+83%).

Table 1. Key Performance Indicators

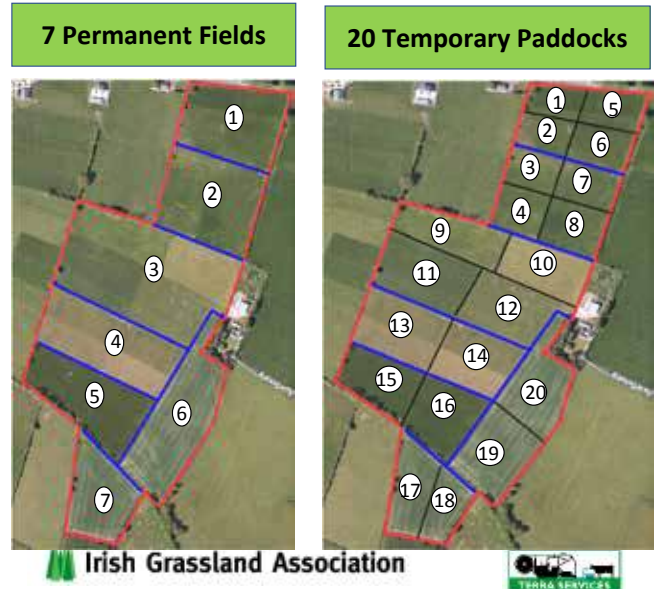
*Billy reduced land rented by 48 acres, by increasing SR the total Farm Output has remained unchanged.

	2009	2017	% Change
Stocking Rate (LU/ha)	1.22	2.00	+64%
Total Farm Output (Kg LW)	41,323	41,477	0%
Gross Output (€/ha)	€794	€1,362	+72%
Variable Costs (€/ha)	€251	€366	+45%
Gross Margin (€/ha)	€543	€996	+83%

Billy described how he is finding it easier to manage the farm at a SR of 2.0 LU/ha compared to when it was at 1.2 LU/ha. He finds the grass is now easier to manage and he can maintain higher quality grass right throughout the season, resulting in increased animal intakes and consequently higher animal performance. Billy has focussed on a low-cost grass-based system in order to keep variable costs low. Some of the changes Billy has implemented on his farm to achieve this improved performance

include, weekly farm walks, optimum pre-grazing yields and grazing to a residual of 3.5 cm resulting in more high quality grass in the diet and better utilisation of this grass. Ultimately, he has achieved this by splitting large fields into paddocks with better placement of water troughs allowing for easier grazing management and better control of grass on the farm (Figure 1). The paddock system allows easier management of the stock on the farm.

Figure 1. Image of how the 7 permanent fields are divided into 20 temporary fields



Blue lines indicate permanent fencing
Black lines indicate temporary fencing

“Soil fertility is key to growing grass”

The importance of soil fertility was strongly emphasised. Billy stated “There is a CAN ban on this farm”, in order to build P & K levels which are

currently at index 1 or 2, Billy will only spread 10-10-20 or 18-6-12. He has seen the return he is getting by applying P and K and he is aiming to increase the index to 3 across the farm, in order to do this no straight N is spread on the farm.

Billy summed up his system by saying “A simple system, compact calving, focussing on soil fertility and making high quality silage are key to driving performance of the farm”.

Grazed it in 3 days, grow it in 3 weeks

Catherine Egan of Teagasc focussed on farm set up including, number and size of paddocks. She described how a field should “be grazed in 3 days and grow in 3 weeks”. Spending more than 3 days grazing a paddock is allowing animals to graze the regrowth's thus impacting grass growth. Catherine also outlined the importance of identifying the correct paddock size in order to ensure the group of animals will graze it out in the correct time frame. To do this correctly, you must first map the farm to know total area, identify the correct paddock size, based on the type of animal and group size, erect fencing to create the appropriate paddock divisions, giving careful thought to water trough placement. Fencing can be low cost, with permanent fencing on the perimeter and pigtailed reels used to split paddocks. Catherine explained that 50 yearling heifers require 1 ha paddocks, while 40 suckler cows and calves will require 2 ha paddocks.

Figure 2 below indicates some paddock layouts suitable for different field types and suggested water trough placement to maximise grass utilisation.



Catherine also presented different options for fencing cattle and sheep and the associated cost of each, ranging from a basic reel and pigtail to 3 strands of reels, with cost ranging from €0.40 per metre for pig-tail and single strand using a reel to €1.90 per metre for electric sheep netting. Billy described how he uses one reel only to put up two strands of wire on a fence and splits each paddock into 4 using this method (see image 1). The cost of splitting one block into 7 paddocks to allow 3 days grazing per paddock and a rotation length of 21 days is €100 per acre, approximately and will result in €180 return on investment, due to increase in grass quality, quantity of grass grown, animal performance and allowing a higher stocking rate to be carried. It's a simple way drystock farmers can improve output and efficiency with minimal investment according to Catherine. Adam Woods summarised by stating "infrastructure does not need to cost the earth; a trough and temporary fencing is all you need".

Image 1. One field divided into 4 paddocks using temporary wires and water trough placement on Billy's farm.



Bridget Lynch of UCD was the final speaker on the day. Bridget focussed on grazing management and reseeding. Bridget highlighted the importance of grazing swards at the right time, ideally grass should be grazed once it reaches 10 cm (equivalent to 1300-1600 kg DM/ha) and grazing down to 4cm during

the main grazing season. Bridget said in an ideal world we would all be measuring grass, but it can be as simple as walking the farm on a weekly basis so you know how much grass is in each field and estimating how many days you will get in each field, it doesn't have to be complicated she said. You are then armed with the knowledge of how many days of grass you have ahead, and if a surplus or deficit is likely to occur so you can take remedial action sooner rather than later, be it removing surplus as bales, or introducing supplement to avoid running out of grass.

Bridget also said now is the time to start thinking of reseeding, reseeding in the autumn is too risky if the weather turns against you. Ideally reseed in the April – June period as the warmer temperatures will result in a quick establishment of the sward and allow an ideal opportunity to apply a post emergence spray to control weeds before they become a problem. Use the Recommended List and Teagasc Pasture Profit Index to ensure you are choosing the best varieties, with a maximum of 3 to 4 varieties in the mixture. Billy said reseeding is paying for itself on his farm within 3 years, he is seeing better growth at the shoulders of the year with reseeded swards and also higher quality grass being available to his stock.

It is also now time to calculate your silage requirements for next winter, know the number and type of stock you will be carrying through the winter and determine how much area you need to close for silage. By implement the simple ideas shown on the day you will grow more grass and be able to utilise the grass better resulting in the ability to close a greater area for silage and replenish your stocks for next winter.

The IGA wish to thank Billy and his family for hosting the event and opening his gates to the large crowd on the day, and Terra Services for their kind sponsorship of the event.

We would like to thank our sponsors TERRA SERVICES



IGA President Jan Jensma and event sponsors Mullinahone Co Op and MSD Animal Health making a presentation to host farmer John Large

IGA Sheep Conference and Farm Walk Review

Fiona McGovern,
IGA Council member
and Teagasc



Over 150 farms and industry delegates attended the Irish Grassland Association sheep conference and farm walk, sponsored by MSD and Mullinahone Co-op, in Horse and Jockey, Co Tipperary on Tuesday 22nd May.

A theme running through the event was the importance of recording across both animal and grassland parameters in order to successfully manage a more profitable and efficient system. The morning session featured presentations from Darren Carty, Irish Farmers Journal, Kevin McDermott, Sheep Ireland and Matthew Blyth, Didling Farms, UK while the afternoon session incorporated a farm walk on the farm of John Large, Gortnahoe, Co. Tipperary.

Conference

The last 10 years have seen the Irish sheep industry overcome many challenges and welcome many opportunities. This was discussed in detail by Darren Carty, in his presentation entitled 'Sheep sector opportunities and challenges – what lies ahead'. Darren gave a comprehensive overview of the Irish sheep Industry, highlighting the stabilisation in the national flock and the growth in sheep meat exports to new European markets as

positive reflections of the past ten years. As the demand for efficient and sustainable production systems increases Darren addressed some of the challenges which will inevitably face sheep farmers over the next decade.

A declining number of early lamb producers have increased the seasonality of lamb production. Therefore, maintaining a year round supply of lamb will be a growing issue going forward. In conjunction with this, lower New Zealand exports have created opportunities for Irish export markets. Going forward, securing an equal footing in world trade negotiations in for exporting Irish sheep meat to international markets such as China and the US will increase demand and hopefully profitability. This year, producers of animal food products have seen the increase in production of meat alternatives (lab produced meat) worldwide. This, coupled with the influence of social media on consumption patterns has the potential to create negative perceptions of the products we produce. It is up to us as producers to make sure the nutritional value of our high quality produce is understood by all consumers. Implementing and delivering a practical clean livestock policy will be vitally important to the success of this going forward.

Genetics is responsible for providing approximately half of all productivity gains in livestock production systems. The second speaker, Kevin McDermott, brought us through the history of Sheep Ireland over the past 10 years since it was first established in 2008. He reminded the audience of the initial genetic objective within the Irish sheep industry which was focused on a single trait, lean meat production, and the potential detrimental fact that designing a breeding policy on a single trait can have. A breeding policy should integrate aims from both a maternal and terminal perspective which means that flocks can focus on developing both growth traits and ewe maternal ability at the same time.

As a result the Sheep Ireland genetic index ranks animals on both their replacement (maternal) and terminal characteristics. This allows farmers to select rams which will meet the requirements of their breeding policy and improve the genetic make-up of the flock. Kevin highlighted the forward progression of the genetic sheep index through the development of a central progeny test (CPT) programme and the increase in the number of farmers' performance recording within the LambPlus programme. In 2017 alone it was noted that over 10,000 pedigree ram lambs were performance recorded through the Sheep Ireland database.

Our third speaker of the day, Matthew Blyth, gave an in-depth overview of his farm, based in West Sussex, UK, where he is running 1250 mid-season lambing ewes across 489ha. The farm is currently divided into permanent pasture (83.86ha) and 5 year leys (66.18). Matthew addressed the importance of having key performance indicators (KPI's) for your flock and putting targets in place in order to ensure that your farm is performing to its optimum potential. He explained the advantages of paddock grazing and highlighted the importance of putting a grassland management plan in place. Over the past 10 years Matthew has progressed completely to a rotational grazing system, and outlined the benefits he has seen in flock performance as a result. Rotational grazing has maximised grass growth and by maintaining quality throughout the grazing season. A combination of improved grassland management and earlier weaning has led to higher lamb growth rates and a greater percentage of lambs being sold from the farm earlier in the year. The aim for Matthew is to have approximately 80% of lambs sold by the time the ram is introduced to ewes the following autumn. Lambs are weaned at 12 weeks of age and given priority to pasture. This has resulted in introducing lambs to swards at grass heights of 7-9cm and 75% of lambs being drafted by mid-October.

Farm Walk

A beautiful sunny afternoon set the scene for an exciting and thought provoking farm walk on the farm of John Large, Co. Tipperary. John operates a mid-season lambing flock alongside a beef suckler to fattening system which is run over 87ha. John's Teagasc advisors Jack Murphy and Joe Hand discussed his farm structure and grassland management. His land is split into three grazing blocks, two of which are located away from the main yard and housing facilities. John is currently running 630 ewes and 180 replacements, which are bred as ewe lambs. His current stocking rate for the sheep enterprise is 12 ewes/ha. Similarly to sentiments expressed by Matthew Blyth in our morning session John

emphasised the importance of a rotational paddock grazing system to all attendees.

He highlighted the importance of implementing a grassland management system on his farm and how it has allowed him to operate a profitable production system with low input costs. The average paddock size is 1.5ha while temporary fencing is also used to further divide paddocks during the grazing season. This practice was clearly visible on the day with plans in place to remove heavy grass covers as baled silage. The Spring of 2018 has been extremely tough for farmers across the country and things were no different on John's farm. Thankfully, with nitrogen applications and improved soil temperatures grass growth rates have now returned to normal levels of 80+kg DM/ha/day.

John's farm is one of four farms involved in the Sheep Ireland CPT programme since 2009. As a result all of John's ewes are AI'd in early October with the majority lambing down within

a two week window in early March. In 2018 72% of the ewes held to AI with an average litter size of 2.05 lambs. Eamon Wall, Sheep Ireland, discussed the role John plays in the CPT programme and the importance of data recording in order to validate ram genetic performance. Eamon explained that over 20 rams were used to mate John's ewes in 2017 ranging from five breed types namely, Belclare, Texel, Charollais, Suffolk and Vendeen. A selection of female progeny is then retained from each ram in order to further evaluate their maternal performance and longevity within the flock. John and Eamon gave us an overview of current animal performance with lambs averaging 17.3kg at 46 days of age, equating to a growth rate of 270g/day. John operates a lamb finishing system where he sells all of his meat lambs directly to the processor. The target carcass weight is 20.5. In order to achieve this slower growing lambs are moved onto a crop of forage rape in October to boost growth rates and reduce finishing times.



IGA President Jan Jensma and event sponsors Mullinahone Co Op and MSD Animal Health with conference speakers and host farmer John Large



The final stop on the farm walk reviewed the financial performance of the farm with John addressing the point that your farm is your business and that each farmer must run a profitable system to suit their requirements. The beef and sheep enterprises on John's farm are set up in such a way that both complement one another with gross margins of €888/ha and €982/ha, respectively in 2017.

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





Conference speakers, event sponsors Mullinahone Co Op and MSD with IGA council members.

Excellence in Beef Farming – Beef Conference Review

Christy Watson
IGA Council member
& Teagasc



The Irish Grassland Association travelled to Kildare for the 2018 IGA Beef Conference and Farm walk. Held on May 24th the event sponsored by MSD Animal Health and Mullinahone Co-op proved to be a great success with delegates hearing three inspiring presentations at the indoor session, followed up by a farm visit to the O Connor beef farm that simply ticked all the boxes.

Maximising Grass Growth on my Farm - Ger Dineen beef farmer Kilnamartyra, Co. Cork.



In his presentation the 2017 Grassland Beef Farmer of the year outlined his farming philosophy and his approach to grassland management which allows him to grow 14 tonnes of DM/ha. This performance is all the more impressive when Ger is operating a farm with 2/3 dry ground and 1/3 heavy. The bottom line is foremost in Gers mind and he told delegates that it costs him €1,200 per week to feed his cattle indoors, so grass is his most prized crop. The statement from Ger that “Good spring grass is better than 10 kgs of ration and a lot cheaper” brought home to delegates the absolute necessity to make best use of cheap spring grass. Paddock grazing and weekly grass measurement are some of the tools used by Ger to achieve high output, Ger inputs weekly grass measurements into Pasturebase and bases decisions such as reseeding of paddocks on annual grass production as shown

on Pasturebase reports. Even though finishing bulls under 16 months Ger still finds good baled silage made from surplus grass from his paddocks makes a valuable contribution to the diet and saves him up to €250 per head in feed costs. With excellent grassland management and great attention to breeding Gers suckler cows produce a lot of milk and without creep feed his heifers gain 1.3 kgs/day and bulls 1.5 kgs/day up to weaning. The closing statement from Ger encapsulated his philosophy on farming **“For me, the more grass I grow the more profit I make”**.

Breeding the best with the best will always give you the best - right? - Professor Donagh Berry, Teagasc.



Genetics underpins the science behind breeding and can be a very heavy topic, however Dr Donagh Berry in his presentation explained complex terms with very practical examples. His presentation explored how the science of breeding can increase the chance of genetic gain in a population. Berry in his opening slide clearly set out the potential for gain through Genetics by stating “The Sky is the limit”. How one twin could end up a 1-Star and the other a 5-Star left delegates in no doubt as to the complexities of the whole area of animal genetics. In deciding what bull to choose, Dr Berry told delegates it is a function of the differences in index value between the two bulls under consideration and the difference in reliability of the two bulls. The power of Genomic Evaluation

to aid in making genetic progress was outlined, as was the critical importance of collection of accurate performance data on animals for example weighing of cattle. After a very engaging presentation Berry summarised his thoughts as follows.

- Breeding the best to the best does not always give you the best!
- Large variability in genetic merit exists, even among full-sib progeny, and genomics can help identify the superior (and inferior) animals earlier.
- Reliability is a measure of how closely the published proof of an animal is likely to reflect its true genetic merit; the lower the reliability, the greater the likelihood that the animal's proof may change over time but there is an equal probability of the proof increasing as there is decreasing.
- When choosing whether to use a high reliability bull of inferior index value or a lower reliability bull but with superior index value, both the differential in index values of the bulls and the difference in reliability should be considered.
- Published ICBF genetic evaluations are the most accurate way to identify the most suitable animal, male or female.

Connecting with the final consumer is essential for sustainability- Dr Patrick Wall Professor of Public Health, University College Dublin.



Farmers and all players in the food chain were told by Professor Wall to consider themselves as being in the “human health business”, as they produce food which is the “fundamental fuel for human health”. In addition to nutrition and health Professor Wall listed four other areas requiring attention if consumers are to have confidence in the food they consume: i) food safety, ii) animal welfare, iii) animal health and iv) the adverse environmental impact of modern farming practices. However, Professor Wall contends that Irish Beef farmers need to be proactive in addressing these issues. On a positive note he suggested that the Irish Beef sector is well placed to address consumer concerns. The food chain is very complex and good regulation is there to protect consumers and also

producers. The dairy industry was described as an ingredients industry offering a wide range of products as opposed to the beef industry which has a much more limited offering. The ageing process was an area identified by Professor Wall as a potential growth area for the beef industry, the ageing process being characterised by loss of muscle mass Professor Wall told delegates **“many older people are not consuming adequate amounts of easily digestible protein so there is an opportunity for the beef sector to contribute to healthy aging. It shouldn't be too hard to sell a product that slows down the aging process!”**.

The O'Connor Farm - Moone Co. Kildare.

In the afternoon delegates got to visit an excellently managed Suckler to Beef farm. This 98 ha farm is managed in a three way partnership by Monica, Tom and Thomas O Connor. Thomas was on hand at each stand to answer questions and explain the philosophy behind this very successful operation. The stand out quote on the day was from Thomas when he said in relation to grassland management *“We should not envy the Dairy farmer but copy them”*. The beef enterprise will be focused on during the farm visit, comprising 100 Suckler cows with all male progeny finished as bulls under 16 months and heifers at 21 months. Each year 200 additional cattle are purchased for finishing comprising both young bulls and heifers. The unique feature of this farm is the way the O'Connor's paddock graze the cattle in large groups during the grazing season. The 100 Suckler cows and four breeding bulls are grazed together as one group in two hectare paddocks, 104 young bulls have been grazed in one group for the grazing season, and 112 heifers are grazed together in one group. Grassland management is excellent with all the farm laid out in 2 ha paddocks, with the provision for subdivision of all paddocks. The three stands on the day focussed on the three pillars supporting excellent output on the farm namely: Breeding, Grassland Management, Livestock Management. The O'Connor's are achieving an annual stocking rate of 3.3 livestock units per ha and a beef output of 1,498 live weight per hectare. Grass utilised on the farm in 2017 was 11.5 tonnes of dry matter per hectare.

We would like to thank our sponsors for their continued support





Dairy Summer Tour – focus on high profit and high return dairying

Michael Bateman,
IGA Dairy Event Chairman &
Dairy Farmer
George Ramsbottom,
IGA Council member
& Teagasc



The Irish Grasslands Dairy Summer Tour focuses on high profit and high return on investment milk production when it visits two grass based dairy farms at Shinagh Dairy Farm and Rearour, Aherla. The event, sponsored by AIB Bank, takes place on Tuesday July 24th. The major focus of this year's event is achieving a high whole farm profit and converting a leased farm to milk production to achieve a high return on investment. Maximising the use of grazed grass in the cows' diet will feature prominently on both farms.

Speaking at the launch of the event, Michael Bateman chairman of the Tour said, 'Since milk quota removal, commercially focused dairy farms have the opportunity to specialise in dairying and maximise the profitability and returns on their dairy farm. This focus continues the theme of January's Dairy Conference where the twin topics of achieving a net profit of €2,500 per hectare farmed and/or a return of 15% or more on assets invested through the leasing route were highlighted. With this in mind, the Irish Grassland Association invited two milk producers – one farming on a mostly owned farm and achieving a high profit per hectare farmed and the second

managing a converted fully leased unit yielding a high return on the conversion investment made to host this year's Dairy Summer Tour'.

Kevin Ahern, farm manager at Shinagh Dairy Farm, Bandon, Co. Cork was invited to host the tour with a focus on achieving a high return on investment on this leased farm. Kevin manages this 78 hectare leased farm since it was established in 2011 by the four West Cork Co-ops. All of the land leased comprises the milking platform with the 232 strong dairy herd stocked at 3.0 cows/ha. The farm grew an average of 17.1 tonnes dry matter per hectare in 2017. During the conversion phase, 2.1 km of roadways were laid, a 20 unit milking parlour constructed and a slatted shed converted to a 200 cubicle shed with sufficient slurry storage to accommodate the rapidly expanding herd. Most of the land has been reseeded over the past five years. Improving soil pH and P&K indices is on-going. The herd produced 397 kg milk solids per cow (4.54% fat; 3.79% protein) on 320 kg meal last year with 1,200kg of milk solids produced per hectare.

Conor and Josie Kelleher farm at Rearour, Aherla,

Co. Cork. They farm 57 ha, practically all of which is owned. With an average of 142 cows grazing the farm in 2017, the milking platform stocking rate was 3.4 cows/ha. The farm grew over 16 tonnes of grass dry matter per hectare in 2017. Conor's herd produced 527 kg milk solids per cow (4.50% fat; 3.75% protein) on 830 kg meal that year.

Common features of both farms are the following:

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

Commenting at the launch of this year's Summer Tour, Donal Whelton, AIB Agri Advisor, said, 'We are delighted to continue our support of the Irish Grassland Association Dairy Summer Tour. This year's event is a further opportunity for farmers to learn first-hand from two progressive, financially driven dairy farmers. The fundamentals of grass utilisation and maintaining efficiencies are key for all farmers, particularly in a period of volatile milk prices and challenging weather conditions. Learning how both farmers managed to successfully achieve such high returns in different circumstances will be an important lesson from the day's event'.

For further information about the event contact Maura Callery at (087) 962 6483 or visit the Irish Grasslands Association website at www.irishgrassland.com

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Conor Kelleher
Host Farmer

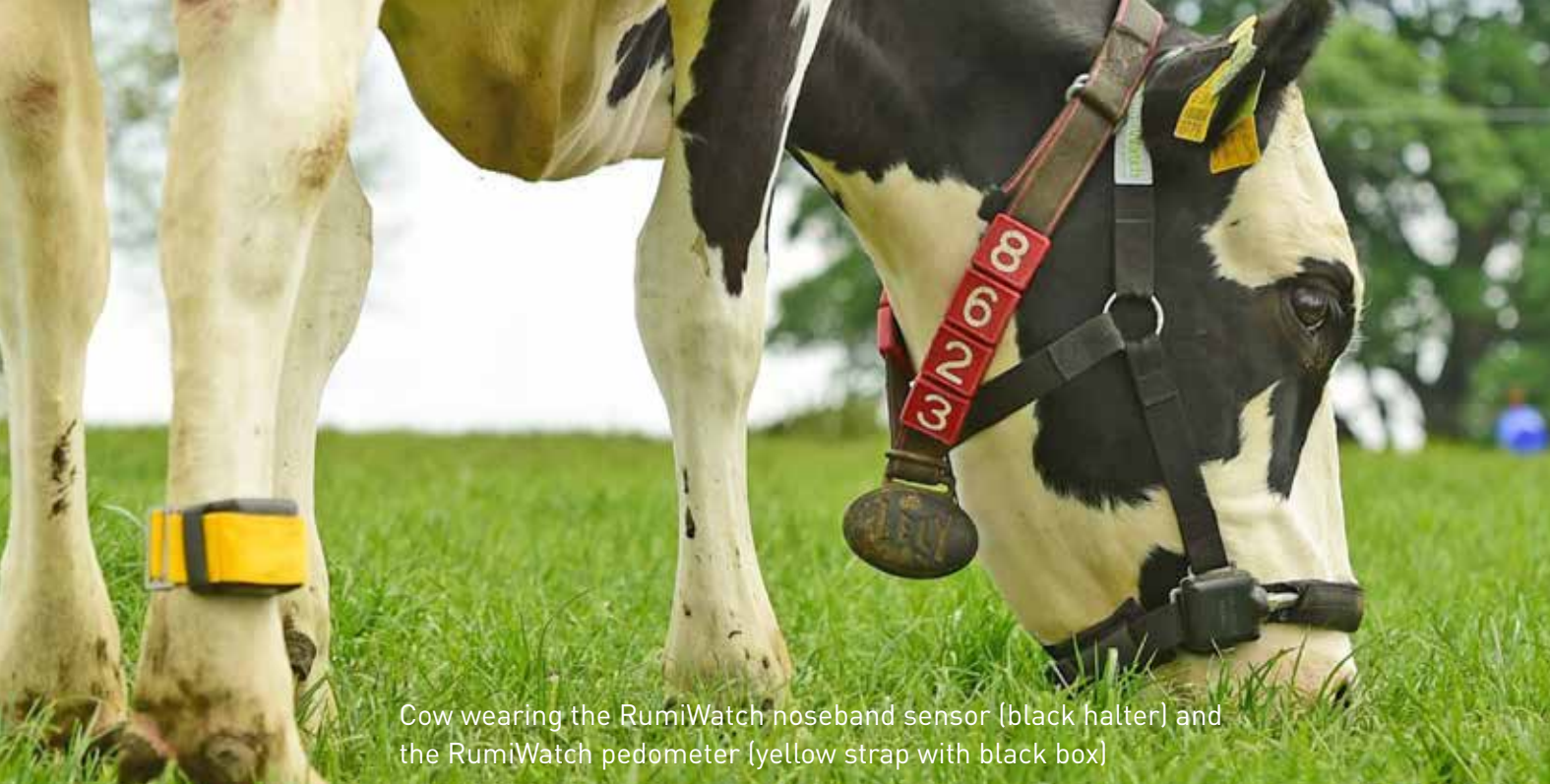


Kevin Ahern
Host Farmer



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





Cow wearing the RumiWatch noseband sensor (black halter) and the RumiWatch pedometer (yellow strap with black box)

Travel Report from Student Bursary Winner Jessica Werner

I would like to give a big thank you to the Irish Grassland Association for giving me the opportunity to present my research at the European Conference of Precision Livestock Farming (ECPLF) in Nantes, France. The ECPLF is one of the largest gatherings of European researchers to exchange experiences and knowledge in the area of Precision Technologies.

I am currently working in Teagasc, Moorepark on my PhD titled "Integration of precision technologies into pasture-based milking systems". As part of my studies, I conducted an experiment if cows receiving restricted herbage allowances showed different grazing behavior to control cows. I used the RumiWatch noseband sensor (which I validated in previous experiments against visual observation. This is a pressure sensor integrated in the noseband of a halter, which records each jaw movement of the cow and can determine between grazing and rumination times as well as detailed behavior such as grazing bites and rumination chews. I applied the noseband sensor together with a pedometer to measure activity to cows which had 100% herbage allowance and 60 % herbage allowances. I presented the results of this study to a wide group of researchers at the conference in France. My results indicated, there is a significant

difference especially in rumination behavior. These results opened an interactive discussion after my presentation at the conference and I obtained some new inputs/views for my research through the scientific exchange with other researchers in my field. It is planned to compute more analysis based on the discussions and investigate if it is possible to identify a cow behaviour indicator which would give feedback on the correct grass allocation. In future, these approaches and experience will help me in completing my PhD thesis.

Overall the conference was well attended with nearly 200 people from all over Europe and even Australia, Canada, USA, Brazil, China, Columbia and Asia. Besides a lot of presentations around pigs and other species, very little research was presented which was applicable on pasture-based systems. Therefore, it was even more important that I represented the Irish grassland milk production system in this International symposium. Daniel Berckmans from KU Leuven, Belgium, as a well-known representative in the area of Precision Livestock Farming (PLF) was giving an introductory key note speech on the first day of the conference. He highlighted important facts about PLF, such as "PLF is still just a tool for farmers, whereas farmers



are still the key factor in using the technology when monitoring animals in an automated continuous basis." This needs to be considered in development or application of sensors. Further some interesting impacts of PLF on animal welfare were discussed by Peter Stevenson from England. Sensors may be able to contribute to animal welfare if they are used in the right way. In various presentations, methods were mentioned which should help to analyse the increasing amount of data and I was able to get some input for the further analysis of my data. Nantes as the former capital of Brittany had a lot of historical sites with the Château des ducs de Bretagne, the

residency of former dukes. Even the strong Celtic-Gallic linkage was represented by at least 6 Irish Pubs in the city.

I really appreciate the opportunity given by the Irish Grassland Association to travel to the European Conference of Precision Livestock Farming in Nantes, which will help me to complete my PhD studies successfully. Further Teagasc in Moorepark will be the next host for the ECPLF in 2019 thanks to a successful application of my supervisor Bernadette O'Brien. This will be a great chance to represent Irish agriculture and grassland systems in an international symposium.



Château des ducs de Bretagne in the city center of Nantes.



Travel Report from Student Bursary Winner Niamh Garvey

The Irish Grassland Association's student travel bursary allowed me to spend three days on a study trip to Normandy during the last week of March 2018. This trip gave me a brilliant opportunity to experience the advisory support available to farmers for grassland management in another country. I am currently a Masters in Agricultural Innovation support student and my study title is: Assessing extension methods to promote uptake of computer aided grass management in dairy discussion groups. I have been studying the role of discussion groups to provide support for farmers' use of grass measuring and PastureBase Ireland.

During the trip I spent two days with dairy farm advisers Emile Turmeau from Orne Conseil Elevage, a livestock management advisory association and Thierry Jeulin of Chambres d'Agriculture de Normandie, which is a self-governed public body which works at regional level providing advisory services to farmers. On the third day I attended an information day for farmers and advisors about the decision support tool Pastur' Plan in INRA's (The French National Institute for Agricultural Research) Le Pin research farm delivered by Luc Delaby. Pastur' Plan is a spreadsheet based decision support tool for farmers to manage rotational grazing systems and is the most similar tool to PastureBase Ireland that is available to farmers in the Normandy region of France. It has been

developed in partnership between INRA and Orne Conseil Elevage. Pastur' Plan has the capability to simulate different scenarios or results of grazing management decisions and shows future grass wedges for each paddock change which supports decision making.

During my two days with farm advisors I had the opportunity to get some first-hand experience of the production systems on these farms and how the advisory services for dairy farms work in Normandy. Advisory services for farmers are predominantly one to one contact with an advisor. Discussion groups, as we know them in Ireland do not exist in Normandy. There are some "strategy groups" where groups of farmers meet over a period of months to discuss business planning.

In contrast to Ireland, in Normandy there is a huge variation in stocking rates on dairy farms in the region ranging from 1.5 cows per hectare to over 6.5 cows per hectare. On the majority of farms maize silage makes up part of the diet throughout the year. While grazed grass is the cheapest feed available to farmers in this region, the potential dry matter production is lower than in Ireland. Yields of 12-13 tonnes of grass dry matter per hectare have been achieved at research level and it is estimated that 6-8 tonnes are grown on average on dairy farms. Grass growth begins a month to six weeks later

in the spring and summer droughts are extremely likely, silage must always be available to fill deficits.

Advisors in Normandy saw promoting the benefits of pasture management as an important part of their role. However, they face additional challenges compared to their counterparts in Ireland. As the amount of grassland per cow is extremely variable, it is more difficult to

set targets for grassland management. Individual targets are needed for different situations; they felt that this made it difficult to discuss grassland management in detail with groups of farmers. In many cases grassland stocking rates are so high that maize silage must remain in the diet throughout the year. Therefore it is much more difficult to have common targets or advice for a group of farmers. Farm advisors I spoke to felt that this was one reason why discussion groups are not a central part of advisory services in the region.

Throughout my trip both advisors and farmers were very interested in dairy farming in Ireland, in particular in our ability to operate seasonal systems which make maximum use of grazed grass. In Normandy the majority of farms operate all year round calving as they are required to supply consistent milk volumes throughout the year. I was struck by the number of groups of animals present on each farm and how much it complicates the running of a farm even compared to a split calving scenario in Ireland. In this region, many dairy farmers supply milk for the production of cheeses which have Protected Designation of Origin status. While this guarantees a higher milk price, farmers must comply with requirements which can include



having a certain area of grazing per cow and a mandatory percentage of the traditional Normande breed in the herd.

Grazed grass is still the cheapest feed available to dairy farmers in this region but many farmers don't have the opportunity to include it as a large part of their system. Over the last 5 years there has been an increased interest in growing protein crops or mixes to reduce dependence on imported protein sources to feed with maize silage. I had the opportunity to see some of these crops; the mix pictured consists of vetches, peas, beans and oats.

During a "usual" spring, cows are turned out in Normandy during the last week in March. When the trip was planned it was expected that I would see cows grazing. However I heard a very similar story to that in Ireland this spring. Ground conditions did not allow early turnout, grass covers were lower than expected and most cows remained housed. On one of the farms I visited cows had been grazing for three hours during the day but were back inside when I visited the farm at about 4:00 pm. On this farm they had been on-off grazing since the 24th of March on the driest paddocks. This farm was the exception rather than the rule, the farm advisors I spoke to did not know of any other farm where cows had been turned out at that time.

I would like to thank the IGA for awarding me with the student travel bursary which made this study trip possible, a brilliant experience which I will carry with me throughout my career and will also contribute to my master's thesis write up. I would also like to thank all those who helped me to organize this study trip in particular Luc Delaby, without his support this would not have been possible. It has also given me a renewed appreciation of what can be achieved in spring calving grass based dairy systems in Ireland and the competitive advantage this offers us.





Irish Grassland Association 2018 Student Conference

Emer Kennedy,
IGA Council member
and Teagasc



The Irish Grassland Association annual student conference sponsored by FBD is fast becoming a highly anticipated date on the calendar. Last year saw record numbers of over 500 students travel to Tullamore for the very educational and social event. For many, this is their first foray with the Irish Grassland Association and one which sows the seed of the advancement of knowledge of good grassland management in Irish farming.

This year the ninth annual Irish Grassland Association Student Conference will take place in Co. Galway on Monday, October 8th, 2018. This is the first time the conference will be held in Galway and it will give students the opportunity to meet progressive dairy and beef farmers and see first-hand current sheep research programmes in the West of the country. The day will be broken into a morning and evening session. Both sessions are on-farm – the morning will start in Teagasc Athenry Sheep Research farm. Researchers from

Teagasc Athenry will explain the current research programmes and also introduce students to the INZAC flock and to a recently established experiment looking at the incorporation of white clover into sheep grazed swards at two fertiliser nitrogen and stocking rate levels on the productivity of pasture based lamb production systems; Trevor Boland, a young beef farmer from Co. Sligo will speak to students about his career path, his beef enterprise and how he embraces technology.

In the afternoon, students will travel to the dairy farm of Brian Hynes. Brian is a young dairy farmer who is currently farming in partnership, during the farm visit he will give an insight into his farming system and the grassland management regime he employs on the farm.

Dr. Fiona McGovern, researcher in Teagasc Athenry, will give an update on the INZAC

flock. Approximately half the gains in animal performance achieved at farm level can be attributed to superior breeding or genetics. Since the establishment of Sheep Ireland in 2008, the ranking of Irish sheep on their genetic potential is possible. In contrast sheep genetic indexes have been available for sheep farmers in New Zealand for over 20 years and large increases in sheep farm productivity and profitability have been achieved by the industry. Research has shown that the rate of genetic progress is three times higher for the New Zealand sheep industry compared to the Irish sheep industry. Although the New Zealand and Irish indexes are selecting animals for similar characteristics, a genetic comparison of New Zealand versus Irish elite ewes has not been undertaken under common environmental conditions. Therefore it is difficult to provide an answer to the compatibility of the New Zealand ewe to Irish grass based production systems. The Irish and New Zealand across country genetic flock (INZAC flock) is now in Teagasc Athenry to address this question. The flock consists of 180 ewes from two main breeds, Texel and Suffolk, representing the top genetic merit animals in the Irish and New Zealand maternal genetic evaluations. The objective of this flock is to allow for the benchmarking of elite Irish genetics compared to elite New Zealand genetics and to validate the Sheep Ireland replacement index. The flock will evaluate the performance potential of New Zealand and Irish sheep for animal characteristics such as lamb growth rates, milk yields, reproduction and lambing traits. Dr. Philip Creighton will also provide an update on his current research projects, which will include final results from the stocking rate and prolificacy trial conducted over the last number of years and well as discussion around his newly established project looking at the incorporation of white clover into pastures for lamb production systems.

We would like to sincerely thank our hosts Teagasc Athenry and Brian Hynes, Co. Galway for their help and cooperation in hosting our 2018 Student Conference



We would like to sincerely
thank our sponsor the
FBD Trust, who have
sponsored this event since
its inception in 2010





A lack of silage planning for Spring 18 – Opinion piece with Matt Ryan

Matt O' Keeffe,
IGA Council Member,
Editor, Irish Farmers
Monthly.



Planning to have adequate silage stocks is one of the most important aspects of livestock farming. That statement would seem to be a practical and logical statement. Yet there is reason to believe that many of our farmers are not planning their silage cutting to absolutely ensure that they end up with adequate fodder stocks for winter.

Maximising grass growth.

That is definitely the opinion of Matt Ryan, agricultural consultant and formerly of Teagasc. He says that the figures speak for themselves: “stocking rates need to be running at around 4.5 cows per hectare at the end of May. The fact is that very few dairy farms are stocked that tightly at peak grass growth, which means that there is inadequate ground set aside for first-cut silage. That’s the period when there is most potential to grow surplus grass and it is clear that many farmers are not fully availing of that opportunity.”

Matt Ryan’s philosophy with regard to first cut silage is that eighty kilos of nitrogen per hectare must be spread to maximise growth and tonnage. Matt explains what is happening

in practice: “many farmers continue to graze paddocks until surpluses appear. Those paddocks are then taken out of the rotation by ensiling or wrapping. Because they have only been fertilised for grazing their potential to grow a larger tonnage for silage is limited and the paddocks are not managed for silage by extending the growing period adequately. The response to every kilo of nitrogen spread in the April to June period is thirty-forty kilos of grass. Multiply the days growing by the kilos of nitrogen spread and the kilos of dry matter grass figure is calculated.”

The Domino Effect.

Matt Ryan is insistent that ‘grass grows grass’: “There is the benefit of the ‘domino effect’ when grass is let grow on for an extended period. That effect is not available when surplus paddocks, fertilised for grazing, are taken out as part of the grazing rotation. Put in stark figures the amount of grass grown in a six week period is far greater than the amount grown in two three-week grazing periods.”

He goes on to qualify his remarks around stocking rates: “This emphasis on stocking

heavily during the peak grass growth period does not mean that the overall annual stocking rate should be too intensive. The farm stocking rate should remain in or around 2.5 to 2.7 cows per hectare. That doesn’t change just because the stocking rate is driven up considerably at a particular time in order to harvest adequate fodder stocks. A figure of forty acres for one hundred cows at the peak grazing period was a normal stocking rate previously. Some meals were fed as required if growth rates dipped. That approach has changed fundamentally on many farms. In the event that shortages occur the meal option is there. If there is a severe grazing shortage then some of the silage ground can be pre-mown and grazed to get the farmer across the deficit. While there may be a quality issue with that grass it is for a short period and the farmer is still prioritising the ensiling of adequate fodder for the following winter.”

A flawed strategy.

Matt Ryan says that the strategy of over-reliance on surplus grass to conserve silage is a New Zealand concept: “The presumption is that the ‘grass wedge’ will allow surplus grass to be conserved if and when available and that adequate silage will be conserved by using this methodology.”

While Matt Ryan’s approach to planning for adequate silage stocks does reduce the amount of high quality silage bales that can be made during the season to be used to buffer the effects of very wet or very dry spells and on the season shoulders, it does ensure that the priority of adequate silage is maintained. His approach does not reduce the need for farmers to use all available acres for grazing during the critical early Spring grazing period: “All the ground that must be taken out for silage should be grazed twice in the run-up to being shut off for silage. The closing date has to be flexible as grazing is ongoing. So some paddocks will be closed off by the first week in April and some will inevitably have a later closing date up to even the twentieth of April. The cutting date is operated on the basis of an average six week



Matt Ryan
Agri Consultant

growing period with allowances for reduced growth rate periods and always conscious of achieving a balance between quality and quantity. The target must be to have in excess of seventy-five percent of required silage stocks in the pits by the middle of June. If that figure is nearer to eighty percent then all the better.”

Getting the height and growth right.

Grazing interval and grazing height are critical issues as Matt Ryan asserts: “It is important to let the grass plant grow adequately. In normal growing conditions a grass plant will produce a leaf every seven days so in twenty one days there are three full grown leaves to eat. That’s the optimum point to graze when there is maximum quality leaf available. A balance also has to be struck between grazing tight to minimise stem development and not restricting consumption. Too lax a grazing policy will result in stemmy grass developing. However, grazing too close to the soil will both delay regrowth and impact on milk production. Some farmers are now practising a grazing regime that impacts on both grass and milk yields. Very high stocking rates can deliver high solids per hectare but can impact on solids per cow. In some cases a rebalancing needs to be done to optimise both per hectare and per cow production.”



A Year in my Wellies

Lauren Baker, Killeen, Birr, Co Offaly.



Farm Update

The weather has been dry but we haven't had any signs of stress yet. The growth was 80KG DM/HA/DAY on the last grass walk. Although our farm cover is relatively low we feel confident we have enough area in the round to avoid any issues. Breeding is going well with 92% of cows served in 24 days and 97% of the bulling heifers being served in 11 days. This season we used two vasectomised bulls in week five in the hope that they might pick up some of the silent heats. This is the first season we have tried this but Jeremy seems happy it is working well (although the jury is still out on rearing two extra bulls for two years!)

From New Zealand to Birr

For this article I have decided to talk about my experience of moving home from New Zealand to work on my parent's dairy farm in Birr, Co. Offaly. I believe there is a lot to be learned from the New Zealand systems. I didn't come home trying to tell my dad we should winter 460 cows on kale but I did come home saying we would need far more reels and posts for my intended break fencing and back fencing.

Many farms in New Zealand have changed systems in the last number of years feeding more grain and breeding a bigger cow. This is now a common sight in New Zealand but when I talk about my on-farm experience it is coming from a grass based spring

calving system with a high stocking rate and low producing jersey cross cow, where the cornerstone of the business was built on excellent grassland management.

The systems in New Zealand are better defined with a clearer ladder of opportunity for young people entering the dairy industry ; farm assistant --> herd manager --> 2IC --> manager --> contract milker--> variable order share farmer --> 50/50 share farmer --> farm owner. Many people are happy to stop at manager level and be an employee while others will have farm ownership as their end goal.

Ireland has a lot of work to do in defining the ladder of opportunity for young people, being open to the thoughts of contract milking and sharemilking to encourage the younger generation into the dairy farming business. It is no secret that in Ireland we struggle to find farm managers for large units but I feel if more focus was put on these ladders of opportunity it would make it more attractive and also make it more clear for people to see and understand how they can progress in their dairy farming career.

The farm was run with four full time staff and milking 700 cows. The farm owner and his wife reared all the calves and the heifers were contract reared. The team of four people worked brilliantly together and we worked a seven day on, two day off roster during spring, it was great to be able to get those two days

off in a row even during the busiest time of the year. We then moved to eleven days on three days off roster after calving.

In my year working in Ireland we had three full time staff, a student during spring and my dad or a relief milker picking up the slots on peoples' days off. In comparison to New Zealand this was definitely a more difficult roster to work with as one of the 3 full time staff was doing all the calf rearing during spring.

Most farms in New Zealand hire in seasonal staff for calf rearing and I think this is a great way of doing it. It keeps the pressure off the other staff that already have their hands full and also gives you the peace of mind that your calves are getting someone's full attention. This year in Birr we had four full time staff which made the roster a lot easier and the staff fresher.



It's simple things such as making a roster before the beginning of every month, circulating it to all the staff and making sure people book their annual leave in advance that make for happier employees. Knowing you have a long weekend coming up after a rough few weeks of calving seems a simple thing but a lot of the time having something to look forward to like that is important.



My manager in New Zealand put a strong focus on grassland management with the whole team. We all did grass walks together (once we were out of the busy period) some people may think of this as inefficient to have all four staff doing the grass walks together but I think it was the best thing for us. It made sure everybody was on exactly the same page and nobody was getting left behind. In periods of high growth two grass walks were done per week. Jeremy and I bought this back to Ireland with us making sure every member of the team could allocate grass and was capable of doing a grass walk on their own.



We were regular attendees at the Dairy NZ discussion group meetings and it was always great to get out and compare figures to your neighbours however I really believe we are blessed in Ireland with Teagasc. They are an amazing resource that we should all be using to our full advantage.

It's not always plain sailing working for your family but it is very rewarding to see you can add value to the family business. Adapting the New Zealand system to Ireland is something we take pride in and although it will never be exactly the same we strive to get it as similar as possible. There are definite pluses and minuses to farming and living in both countries but for me I left New Zealand when I felt ready to and I am still very happy with my decision to move home.



A Year in my Wellies

Dwayne Shiels, Letterkenny, Co. Donegal

PhD student with Teagasc Athenry, SRUC in Scotland and the University of Edinburgh.



Farming a lowland sheep flock just outside Letterkenny, with my father George and brother Gerard. I am also a second year PhD student with Teagasc Athenry, SRUC in Scotland and the University of Edinburgh. I'm carrying out research on ewe and lamb behaviours in the periparturient period, and their effects on lamb mortality and subsequent lamb performance.

Lambing

After a difficult spring, grass growth had finally toof off around the country. Sheep prices are holding up very well across the board and hopefully a more positive outlook is in sight. Since my last article the commercial sheep and the Milford ewes have all lambed. Lambing went exceptionally well, especially considering the testing winter and spring. All Milford ewes were sponged this year resulting in a compact lambing. It kicked off on the 29th of March, starting slowly but we had a few busy days with 118 ewes lambing down in just 3 days. Although this had its draw backs, with limited individual pen space, and ewes had to be moved to group pens within a few hours of lambing, and unsettled weather delaying turn out, overall I feel it worked out very well and is something I will consider again for next year. Ewes lambed down in ideal condition, with good sized lively lambs and had excellent supply of colostrum across the board. Lamb mortality remained very low at just over 8%, something I am very pleased with and aim to keep this constant or further reduce it in the future. I have put the low levels of lamb mortality and good lamb vigour down to a number

of factors, mainly the late pregnancy nutrition of the ewe and extra attention to detail on cleaning and disinfecting lambing pens after each ewe. I noted that the infrared bulb was only used with one ewe this year. All ewes are currently at grass with 1.83 lambs per ewe joined with the ram. Post lambing ewes and their lambs were turned out to grass as soon as seen fit to do so. We were two weeks later lambing this year we had adequate supplies of grass and no concentrates were offered to ewes or their lambs. This was working very well until we had a major big setback losing 3 purebred Milford ewes to grass tetany. The ewes were 3 weeks post lambing and were on very good quality grass that had been grazed by the pedigree ewes in early February. Following three or four days of very wet weather I found two ewes down, they received calcium and magnesium but were too far gone and didn't make it. A further three got tetany that evening and the following day but we managed to save two of those. I got a high mag meal made by the local mill and introduced it at 350g/per/head morning and evening and left out magnesium buckets in the fields and it seemed to settle again.

Grassland

Based on the soil sample results I displayed in my previous article, compound fertiliser was applied on all pasture. At home, 2 bags of 18-6-12 were applied per acre and it will receive a second round of nitrogen in the form of C.A.N in the coming days at a rate of ¾/bag to the acre. Any fields which are in index 1 and 2 for P and K have received 2 bags

per acre of 10-10-20 and half a bag of nitrogen. This has given a huge response and some paddocks have since gone ahead of the ewes and have been closed to take a cut of silage off in the next two weeks.

I have split 26 acres of rented ground into 12 small paddocks in late spring (see pic). Although it was costly setting up individual drinkers and purchasing temporary fencing I feel it is starting to prove an excellent investment. We are using creep gates this year for the first time. Simply made from 25mm box iron, with 225mm spaces and put at the gateway to each new paddock. In the past fortnight it can be seen that more and more lambs are grazing ahead, allowing ewes to graze paddocks tighter whilst not compromising on lamb performance. Ewes and lambs are rotated every 3 days and the creep gates are continuously moved.

Thistles have become another real problem this spring with a massive increase on previous years. I sprayed 25 acres with ThistleX last week and the next 4 paddocks will be done following grazing in the coming week.

Sheep performance

The pedigree Texel lambs have all been weaned now for 3 weeks and are performing very well. The have received their second worm dose using a clear drench (Oramec) and a mineral dose. I drenched the Milford and commercial lambs with a Growvite mineral drench, a white wormer for Nematodirus and gave them their first shot of Heptivac-P on the 11TH of May. I also gave them Vecoxan as I was worried about an outbreak of coccidiosis as a result of meal feeding the ewes and the wet conditions. They will get a clear drench next weekend for their second wormer. I sold the first of the February commercial lambs (weighing 44kg) and some of the ewes used for pedigree recipients on the May Bank Holiday; with trade good across the board I was very happy with the sale.



I shored the pedigree ewes and early lambing ewes three weeks ago as they were in very good condition and I was worried about them going over on their backs. The April lambing ewes were shorn last weekend, I was worried it was early to shear them but they were well fit following some of the good weather we have had.

Show season

The showing season for the sheep is just about to kick off with the first stop the National Sheep Breeders Association for our Irish Texel Sheep society All Irelands in Cillin Hill, Co. Kilkenny on the 9th of June. This will be our first year competing as we are relatively new breeders only buying our first ewes in December 2015. Gerard is entering two ewes and a ram lamb from his newly established flock "Kindrum Texel's" and I will be showing a ewe lamb, ram lamb, aged ewe and hogget ram from my "Woodtown" flock. We are looking forward to the experience and hopefully we will both get on well.

We will also be showing commercial sheep in the commercial All Ireland's on the same day. Preparations have already begun with washing, training and the start of the dying. We will continue to show for the rest of the summer with a show or two most weekends. Although a lot of work is required, as new breeders we use it as our shop window to display our sheep and get our name out there for producing top quality animals. We have been very lucky in the past few years getting on very well at all shows and taking numerous championships. Hopefully we can build on our recent success and have an enjoyable summer. Gerard is also entered in the Irish Texel Societies Win a ewe competition which will also take place at the NSBA championships. It would be a great just reward for all his hard work this year if he were to get to the final, or even win the ewe.

This will be my last article for the Irish Grassland Association.

I really enjoyed writing the articles and I'd like to thank the Irish Grassland Association for the opportunity. I hope you enjoyed reading them.



Ivermectin resistance – an emerging problem for cattle farmers

Charles Chavasse.
BVMS CertDHH MRCVS. Area
Veterinary Manager,
Livestock Team Zoetis Ireland.



Managing resistance

It is inevitable that grazing cattle are exposed to parasitic worms and with intensification, increased herd sizes and tighter grazing practices, the burden and impact of these worms are increasing. For many years' farmers, have been using different dosing products to help manage and control the impact of these worms on performance. It is also inevitable that in time, if wormers are not carefully used, worms will become resistant to these products. Worm resistance is when a normal dose of a product fails to kill off more than 95% of the worm burden.

Recent research on commercial Irish farms has shown that worms have become resistant to a number of the commonly used wormer products on these farms, including ivermectin injections and white oral doses containing benzimidazoles. These problems have been well recognised in the sheep industry and for a long time, vets and sheep farmers have been devising strategies to ensure products can still be used and ensure good performance.

Widespread problem

Work carried out last year by Teagasc showed that 16 of the 16 farms tested had resistance to ivermectin injection. The calves were not showing signs of scouring but when worm egg counts were done both before and after dosing, the egg counts did not drop by 95% and in a couple of cases actually increased! When the performance of the calves was compared to those of animals treated with an effective product, it was found that they were on average 7kg less after a month. This would equate to 140kg over a group of 20 calves, or it would be like losing a calf every month and not noticing that it had gone!

Devising strategies to avoid resistance

Cattle farmers would do well to learn from some of the hard lessons that sheep farmers have experienced over the last 25 to 30 years.

1. Have a plan. Discuss with your vet and devise a plan that takes into consideration the type of cattle, the grazing history and pasture management, weather conditions, what products have been used in the past and how

effective they have been. One of the major challenges for cattle at grass is lungworm (hoose). A small number of worms can cause a lot of damage and pasture levels of infective worms can increase rapidly, particularly when a long (2-3 weeks) dry spell ends. If animals are coughing at grass, ALWAYS consider hoose as a potential cause and check the plan and see when they were last dosed and with what. Depending on the persistence of the product, if coughing is heard the dosing interval may need to be shortened. (See example below).

2. Check that your dose is working. Arrange with your vet to take samples both before dosing and 7 to 14 days (depending on the product) after dosing. Whereas, there have been reported issues with ivermectins and white doses, there has been no loss of efficacy reported with either moxidectin or doramectin products.
3. Weigh the cattle and calculate the dose. It is better to slightly over dose than under dose, so if estimating the weight of animals be generous. A rough calculation for a well done dairy calf would be 40kg at birth + 0.75kg per day i.e. a calf that is 4 months old would be $(40 + (120\text{days} \times 0.75)) = 130\text{kg}$. Beef calves will be growing at 1kg per day and may be 5 to 10kg heavier at birth i.e. at 4 months of age will be approximately 170kg. If using an automatic injector gun or pour on ensure that it is filling properly to the correct dose after each animal is treated.
4. Avoid dose and move. Frequently calves are dosed and moved onto silage after grass or similar low risk pastures. This can lead to a build-up of resistant worms on the pasture. It is better to either dose the animals a few days before the move or a few days after the move. This is obviously less convenient but it is an important measure to help prevent resistant worms developing on a farm.

The lungworm challenge

Expect a sharp increase in infective lungworm larvae on the pasture after a dry spell followed by rain.

It is necessary to have a few different plans for scenarios where various levels of challenge from lungworm might occur in mid-June. The white doses and yellow doses (Benzimidazoles and Levamisoles) have no persistent effect and only kill the worms at the time they are used. The ivermectins will persistently kill worms for 2 to 3 weeks, if there is no resistance, which following the recent research, can no longer be assumed. The moxidectin and doramectin products kill worms for at least 5 weeks and they still remain fully effective. The longer acting variations can offer protection against lungworm and Ostertagia (stomach worms) for 120 days. One scenario involves cattle being turned out before the beginning of May. Challenges from lungworm larvae may occur if there was a dry period in the weather at the end of May beginning of June, followed by some rain fall. The calves will be picking up lungworm larvae in the 2nd and 3rd weeks of June and if they had been dosed with a white or yellow dose or an ivermectin at the end of May, they would be coughing and suffering a loss in performance. These calves should have their next dose brought forward, to control the disease before there are any serious losses. However, programmes using moxidectin and doramectin products should still be protecting the calves and should kill off these infective lungworm larvae before they could cause any damage.

The above example demonstrates how important it is to have a plan, but recognise the potential pitfalls due to either resistant worms or a lack of persistent effect of the various products.

Conclusions

Ivermectin resistance is now a reality on Irish farms. Make a plan with your vet, which should include testing the effectiveness of the products you are using and have strategies to reduce the chance of resistance developing on your farm. Not all products have persistent effect against the worms, so the inter-dosing intervals will vary. Check cattle daily at grass and if you hear coughing, take action in consultation with your vet.

Revisiting a 2017 Reseed

Stan Lalor,
IGA council member and
Grassland Agro



In May 2017, the Irish Grassland Association were kindly hosted by Donald and Lucy Bateman for a reseeding event on their farm in Ballylooby, near Cahir in Co. Tipperary. The event focussed on an area that had been sown a month prior to the event. In this article, we look back at the performance of the reseed one year later.

Why were Donald and Lucy reseeding?

The area being reseeded had been selected based on its poor grass growth performance in recent years. Having grass measurement data recorded and stored in Pasture Base was the tool that gave the confidence to select out the area and make the decision to do it. It was showing the area had an annual grass growth that was running 1 t/ha of grass DM behind the average growth rate of the farm. The fields were also showing signs of weeds coming in, and the grass response was visibly lacking behind other parts of the farm. Spring was targeted as the optimum timing as it would make grazing and weed control after sowing easier and less risky than with autumn reseeding. Within the spring grazing plan for the farm, the area was planned for grazing in late March followed by immediate burn off and reseeding 2 weeks later.

The Reseeding Process

On the day of the event, the seedling emergence from three different establishment techniques was on view. None of the area was ploughed, as the fields were dry and quite level. Avoiding having to pick stones was also a priority and swung the decision away from ploughing.

Of the two fields that were reseeded, the larger one was direct drilled using a standard power harrow and seed drill combination. In the smaller field, this, and two additional methods were used side by side for the purpose of providing a comparison on the day. An Einbock pneumatic seeder with tine harrow was also used as well as a Moore Uni-Drill. All three methods were used directly on the burned off sward, with no prior cultivation. Lime and fertiliser were applied before sowing. The

ground conditions at sowing were particularly dry, with Donald noting in particular that the ability of the tine harrow on the Einbock to create and soil tilth was very limited due to the dry conditions.

Photos of 3 methods:



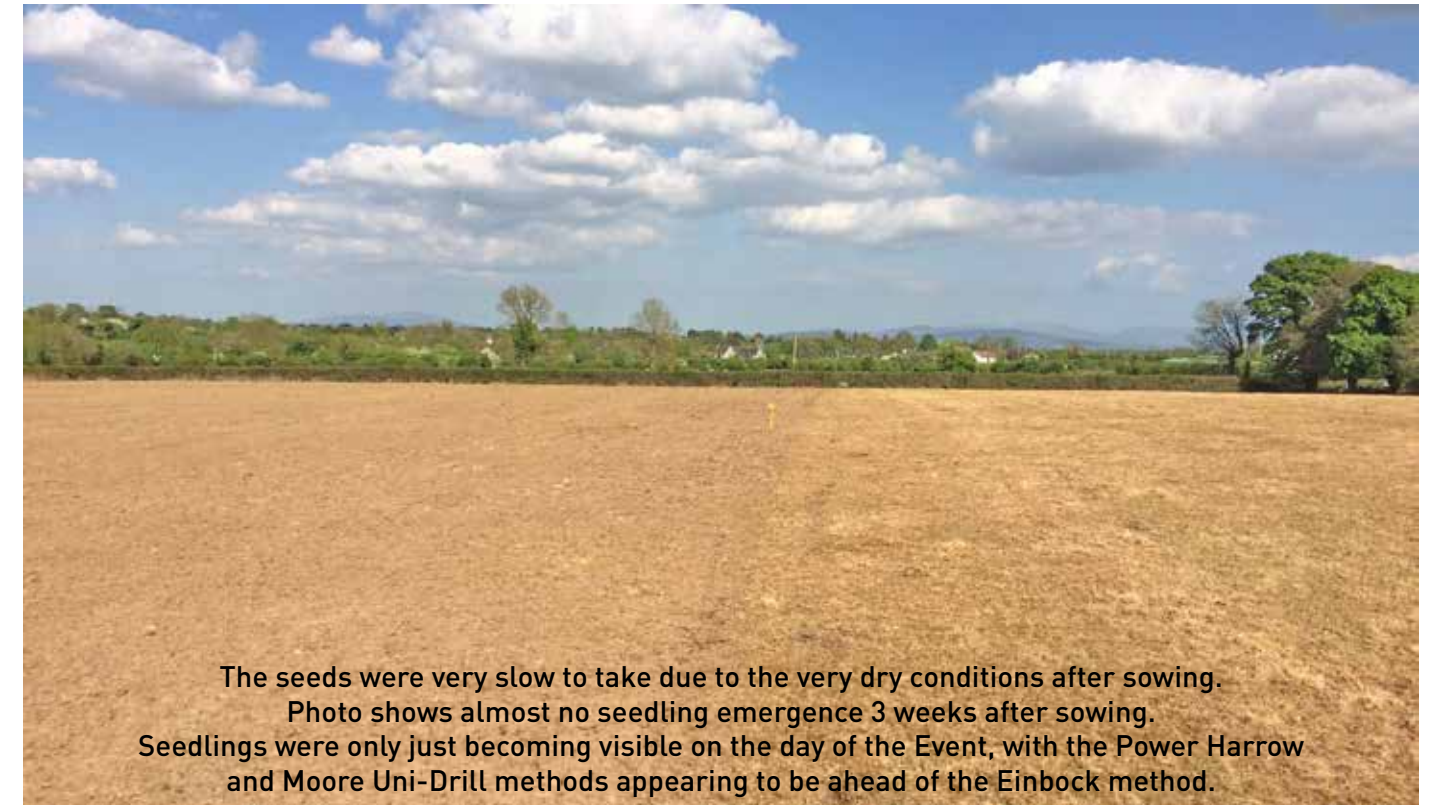
Power Harrow and Direct Drill



Einbock Pneumatic Seeder



Moore Uni-Drill



The seeds were very slow to take due to the very dry conditions after sowing. Photo shows almost no seedling emergence 3 weeks after sowing. Seedlings were only just becoming visible on the day of the Event, with the Power Harrow and Moore Uni-Drill methods appearing to be ahead of the Einbock method.

The event took place towards the end of a very dry spring period, with only approximately 25 mm of rainfall recorded in the month of April in the area. This is well below half of normal rainfall levels for the month in this area and had a big impact on early seed germination. Even though the event was 4 weeks after sowing, the seedlings were only just starting to emerge. The Einbock method in particular seemed to be running behind the other two methods in terms of establishment. Not having the seeds sown in lines as with the direct drill or Moore Uni-Drill methods made it visually less obvious. It required close examination to see the seedlings with the Einbock – but they were there.

Is there any difference between the sowing methods now?

When it comes to establishment techniques, the advice seems to be consistently saying “choose a method that suits your farm – they all do a good job in the right conditions”. What the Bateman’s now find in their field supports this. Even by Autumn 2017 (see photo), and certainly now one year later, there is no discernible difference across the field between the three sections that were sown with the different methods. Even the Einbock, which seemed to be visibly struggling initially did establish and develop into a sward that is as good as the rest of the field.



Six months after sowing, the grass is well established, with no visible differences between the three sowing methods across the field.

How has the reseed performed

The area was selected for reseeding because it was pulling down the average grass growth of the farm. In the 12 months since reseeding, the Bateman’s now see that the area has increased grass growth from being 1 t/ha of grass DM below the farm average previously, to now being 3 t/ha of grass DM above the whole farm average since it was reseeded. In the 12 months from June 2017 to June 2018, the data in Pasture Base Ireland is showing the area grew 18.5 t/ha in total. Given this 4 t/ha positive swing in grass yield, it has given payback on the reseeding investment of less than one year. A good investment!



Steps to success for grassland reseeding

Mary McEvoy,
IGA Council Member
& Germinal Seeds



Increasing grassland productivity has never been more important. Following a long and difficult winter/ spring of 2018, resulting in many fodder stocks being totally depleted, once the weather came right this year many farms rightly focused on rebuilding silage stocks with reseeding deferred until later in the year. Nobody could have foreseen the dry spell that followed and at time of going to print there seems to be little changes of rain over the coming weeks. All we can do is hope that the weather breaks and the country gets the rainfall that it so badly needs. For farms facing a fodder shortage for the coming winter, it is now time to start considering the options available – there are pro’s and cons to each so each farm must make it’s own decisions, but the obvious choices would include: a hybrid brassica such as Redstart, forage rape, stubble turnips or a hybrid ryegrass. The focus of this article is successful grassland reseeding in the autumn

As we approach autumn, now is the time to consider reseeding fields that are not performing on your farm. In order to maximise animal performance from pasture we must first ensure we are optimising the production of grass at farm level. The average level of grass produced nationally is

9.1 t DM/ha, with the top farms producing over 15 t DM/ha. There is huge scope to increase the total grass grown and hence increase grass in the diet, while reducing feed costs in livestock production systems.

Soil fertility is critical to maximising the performance and longevity of swards at farm level. With Teagasc recently highlighting that 90% of all soils are sub-optimal in terms of pH, phosphorus (P) or potassium (K). Without doubt, this is costing farms throughout the country significantly in terms of under-performing grass swards and the necessity to bring in more expensive supplements to overcome grass deficits in the system. Completing regular soil fertility tests on your farm (every 3 years) and using the results to develop a fertiliser program is critical to ensure you can get the most from your swards.

Reseeding is important as a mechanism to increase the perennial ryegrass content in swards. There are several benefits to reseeding and maintain perennial ryegrass dominant pastures:

- Provide more grass at the shoulders of the season (early spring and late autumn)

- 25% more responsive to fertiliser N compared to old permanent pasture
- Increased feeding quality
- Faster re-growth
- Greater total production and so can increase the carrying capacity of the farm

Reseeding Checklist

1. Soil test
2. Spray off old sward
3. Cultivate to achieve a fine, firm seed bed
4. Select top varieties on Recommended List/ Pasture Profit Index
5. Sow 14 kg seed per acre
6. Roll
7. Apply N, P, K as per soil test requirements
8. Monitor for pest attack
9. Post emergence spray
10. Graze once plants withstand pull test

Timing of reseeding

As we approach July/ August it is important to remember that the sooner seed is sown the better. Aim to have grass sown by the end of August. Late sowing can result in poorer results if the weather breaks as lower temperatures will reduce germination, while poor ground conditions will make grazing, spraying and management more difficult.

The table below presents results from a study which compared the effect of September and October sowing. Note the lower tiller number and yield in the October sown sward the following March.

Table 1. Effect of sowing date on sward establishment (Culleton et al. 1992)

	Sowing Date	
	September 3 rd	October 4 th
Seeds sown/ m²	1030	1030
Seedlings 6 weeks later/ m²	760	570
Tillers/ m² March	7190	3110
Kg DM/ha in March	913	478

In order to sow a field by the end of August, you need to work back to determine when the field

should be sprayed off – ideally this should occur at least 2 weeks but preferably closer to 3 weeks prior to sowing. Allowing this time period will ensure the old sward is fully killed and allow full break up of the roots.

It is important to minimise the surface thrash before tilling the ground – ideally, 7 to 10 days after the old sward is sprayed off graze or cut to remove as much of the thrash as possible. A problem with many seed beds is caused with the roots of the old sward holding clumps of soil together resulting in a loose and cloddy seed bed – this is generally as a result of tilling the soil too soon after spraying off the old sward. Allowing a 2-3 week period from spraying off to tilling will minimise this issue.

In this issue of the newsletter, Stan Lalor is revisiting the site of the IGA reseeding demo from 2017 and reviewing the methods used. In general, there will be little difference between the methods, once all necessary steps are taken and a fine, firm seed bed is prepared. A fine firm seed bed will help conserve moisture in the soil, while also ensuring good soil to seed contact – both of which are important for germination. A loose seed bed will dry out much quicker and this may result in poor germination or weak establishment. An old rule of thumb is that you should be able to cycle a bike across the seed-bed!

It is worth noting that in autumn, direct drilling can pose a greater risk for reseeding due to a problem with slugs. Slug pellets may be necessary when sowing by direct drilling or at the very least extra attention should be paid to the sward as it emerges to ensure it is not under slug attack.

Variety Choice

Selecting the right varieties for your particular requirements is critical to ensure you maximise the performance and value of your new reseed. Varieties will perform differently depending on the management (e.g. grazing or silage). Using the DAFM Grass Recommended List and the Teagasc Pasture Profit Index will help ensure you choose the best varieties for your needs. The main traits to focus on are

- Quality
- Seasonal DM yield (spring and autumn)
- Total DM yield
- Ground score or persistency

A grazing mixture should contain approximately, 40% tetraploid varieties and 60% diploid varieties (use less tetraploid on heavy soils) with 3-4 varieties in total. Varieties should have a narrow range in heading date (7 to 10 days).

A silage mixture should contain about 35-40% tetraploid varieties and 65-60% diploid varieties. A 7 day range in heading date will simplify the harvesting, as wider range in heading date will prolong the heading period, and as a result choosing the optimum harvest date for yield and quality will be more difficult.

Medium leaf clovers are suited to cattle grazing, while small leaf clovers are more suited to sheep grazing. Large leaf clovers tend to have a more aggressive growth habit and can dominate the sward over time, and so are less desirable.

After sowing, rolling is absolutely crucial to ensure good soil-to-seed contact. A loose seed bed will have a lower germination rate. One of the most common reasons for the failure of a new reseed is often related to not rolling after sowing.

Post-sowing management

1. Post emergence spray

The best time to control docks and other weeds is after reseeding. Using a post emergence spray will kill seedling weeds before they can properly develop their roots. The product you use will depend on if clover is present and also on the main weeds present in the new sward. It is worth discussing your options with your local advisor or rep to ensure you are using the appropriate product for your requirements.

2. Pests

New reseeds should be monitored regularly for pests such as slugs, frit fly, leather jackets and rabbits. If you suspect you have a problem then speak to your local rep to identify the best method of control.

- Slugs are most often associated with direct drilling but can be a problem regardless of the method used. They are more active in wet weather and generally are not a problem on firm seed beds. If you suspect you have a slug problem, place a plastic fertiliser bag in the field, weigh down the four corners and leave overnight. The following morning check to see if there are any slugs underneath the bag.

- Leather jackets, can create problems in wetter areas.
- Frit fly can cause serious damage to autumn sown swards and are generally more problematic in dry weather. They eat the centre leaf of the new seedling and the affected plants turn yellow and die. To examine swards for frit fly – check the crop regularly from the 1-2 leaf stage by gently pulling the centre shoot of a number of plants. Infected shoots are still green, but will pull away easily, and you will notice a brownish feeding area. If you dissect the stem you may find the frit fly maggot.

Grazing the new reseed

The new reseed should be grazed as soon as the plants can withstand the pull test (using your fingers check to see if the roots stay anchored in the ground when you pull the grass plants as an animal would when grazing). Early grazing is crucial to allow light into the sward and also encourage tillering of the plant. It is recommended that the first grazing is completed at pre grazing yields of 600 – 1000 kg DM/ha. During the first year a new reseed will grow rapidly and frequent grazings at light covers will help ensure you have a densely tillered sward. The 2nd and subsequent grazings on a reseed should occur at 1200 – 1400 kg DM/ha.



Photos with thanks from Germinal Seeds



IGA Annual Journal

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Maximize silage yields for second cut through good use of fertilizers

Options for bridging the 'fodder gap' for next winter

Joe Patton,
Teagasc



The extended poor weather this spring and unseasonally extended dry spell of late, seriously eroded forage reserves on all farms countrywide. This served yet another reminder of the value of having 'fed in the yard'. Problems were most apparent where farm stocking rate had not been matched to annual grass growth potential, and where adequate forage reserves had not been carried into winter. The net result has been much discussion recently as to which forage works best to fill the gaps.

While the definition of a 'normal' winter varies from region to region, the strong consensus is that at least 4-6 weeks' surplus feed (beyond normal winter requirement) now needs to be secured on every farm. For those needing to replenish fodder stocks to that secure level, this may mean a substantial cash outlay to balance feed supply with herd demand for next winter. An approximate fodder budget (Table 1) should be completed at the end of June, to give enough time for sourcing extra feed through late summer/autumn if needed.

Table 1 Guidelines for calculating fodder supply and demand

Silage tonnes per month		Silage tonnes	
Dairy Cows	1.6	Pit silage	Length* Width * Av Height /1.35 (metres)
Suckler Cows	1.4	Silage bales	0.8 t
Weanling cattle	0.7	Second cut	Estimate area * yield (4 to 7 t per acre)
Cattle 1-2 yrs	1.2		
Cattle 2 yr plus	1.3	Aim to have at least 85% of total winter forage on hand by early Sept (including reserve)	
Ewes	0.15		

Where feed supplies look tight, pushing for higher second cut silage yields from own land resources should be targeted as the primary option- every extra tonne harvested is a tonne less to be bought. The recent spell of sunny weather has allowed very satisfactory yields of first cut silage to be harvested in good time. This should allow sufficient intervals to bulk second cuts to over 4.0 tonnes DM per ha by late July, provided

adequate fertilizer (up to 100:16:100 kg of total NPK per ha depending on soil indices) is applied.

This strategy (late May cutting followed by a good 2nd cut) remains the best bet to maximize silage bulk and quality in tandem. Nonetheless a significant number of dairy and drystock farmers continue to delay first cuts into mid-June to 'bulk up' yields. This approach will, ironically, increase the risk of fodder problems next winter due to negative effects on total silage DM yield, lower silage digestibility, and a reduction in autumn grass supply. The lesson that a late first cut creates more problems than it solves, must eventually be learned.

Feed options to meet deficits

Where a feed budget has been completed and likely fodder shortages are identified, options to close the gap should be carefully examined. At this stage, purchasing feed on € per tonne of dry matter basis may be the best route to secure value; dealing by the acre is more risky due to large variation in potential yield.

Table 2 Value of feed options based on energy and protein content (relative to barley and soya)

	Dry Matter	UFL	Protein (PDIE)	Value € per tonne
Maize Silage (→25% Starch)	28-30	0.82	68-72	45-50
Whole Crop Wheat	38-42	0.82	68-72	52-56
2 nd Cut Silage 70 DMD	22-24	0.78	75-78	27-30
2 nd Cut silage 65 DMD	22-24	0.70	68	22-24
Fodder Beet	19	1.10	88	37-40
Soya Hulls	87	1.05	107	185-190

Table 2 shows the value of different feed options relative to barley (€185 per tonne) and soya (€345 per tonne). Options are comparable on an energy and protein basis. Feeds purchased below these rates represent value compared to straights and vice versa. However, these values do not account for the economic cost of growing the crop. Growers may need higher rates per tonne than quoted to leave a margin for supplying the crop- this will very much depend on yield per hectare. Accounting for this risk is a key question when establishing crop contracts.

From a feed management perspective, the aim should be to have at least 85% of total winter forage, including reserve, accounted for by early September (this would include forward bought maize/beet yet to be harvested). Deficits of <20% can be managed by using straights e.g. hulls to stretch fed reserves. However, winter feeding management will generally be simpler if forage stocks are in place. Maize and whole crop silage can readily be fed at up to 70% of total DM, though extra macro mineral supplementation may be required. Beet is a high quality feed that drives animal performance and should almost be considered a concentrate replacement rather than a 'fodder stretcher' per se. Where significant (→25%) forage deficits exist, beet may not work as the sole supplement, but rather will work well to offset deficits in diet quality (where silage quality is poor for example). Interestingly, poor quality grass silage (65 DMD) is valued here at 22-24 per tonne- of all feeds available its market value becomes inflated to the greatest degree in fodder shortage situations.

Addressing the demand side of the winter budget

Looking at the forage options available e.g. maize, whole crop, purchased silage, it is clear that the cost is significant and will likely be at least €160 to €180 per tonne DM in the pit. In feed deficit situations, the potential return on buying these feeds should be carefully considered first before rushing headlong into assessing different feed options.

Central to this is identifying any group(s) of animals within the herd that may be creating or contributing to forage deficits for little financial benefit. These will in practice be the least productive cohort of animals in the herd e.g. high SCC dairy cows, late calving cows, empty culls or dry carryover suckler cows retained on the farm. Replacement heifers calving over 24 months old also have a significant impact on feed demand for no reward. The question must then be asked as to whether it makes economic sense at all to be buying forage to feed this type of stock.

There are two important points to be considered when weighing up this decision. Firstly, retaining this type of stock has a double effect on net forage deficits, in that forage available for conservation is reduced throughout the summer in addition to winter feed demand being increased. This may sound obvious but it can be missed; effects on winter feed demand of holding these animals is often the only consideration. However, seemingly small changes in stock numbers can have a marked effect on total forage conserved.

Table 3 shows the effect on surplus bale supply of retaining late calving (May) dairy cows, from calving until to different culling dates in autumn and for the year as a whole.

Table 3 Forage DM required for a May calving cow from calving until different selling dates in autumn

Culling date	Early Sept	Late Oct	Mid Dec	Annual Forage total
Total Forage DM	1870	2750	3300	4900
Surplus bales equivalent	8.5	12	15	22

For a farm already in forage deficit, retaining five such animals from calving until mid-October will increase imported forage demand by around 60 bales next winter. The imported forage cost of keeping these extra 5 cows for the year is 110 purchased bales. Depending on stocking rate, total concentrate input per cow in the herd is likely to rise also as more grass deficits will arise. The cash cost of feeding such surplus cows is estimated at €900 to €1000 per annum, before overheads are accounted for. Remember, if the farm is in a net position of importing forage, then the cost of filling the feed gaps should be considered against these animals, not averaged across the herd as a whole.

A second major point to note is that potential margins from imported feed should be weighed against the sales value and likely future value of the lowest production animals in the herd, not the herd average. For example, chronic high SCC milking cows for instance will have lower yield and may also reduce milk sales by increased transmission of infection to other cows; there is no justification for retaining these problem cows in a feed deficit situation. Will next year's calf value from the poorest cows in the suckler herd cover the cost of imported feed? These are actually more important considerations than choosing between feed types.

Summary

The renewed drive to build adequate winter feed reserves on farm is welcome for long term security but will drain cash in the short term. Securing the maximum silage yield from own resources through good use of fertilizer and correct management will ease the burden of buying feed. Delaying first cut silage into mid-June is poor practice and ultimately leads to feed shortages. Where feeds must be bought, comparing options on a value per tonne DM basis works best. Aim to have at least 85% of winter feed forage accounted for by early September.

Selling off the least productive stock in the herd is often a better option than buying feed to keep them.



Alternative forage options are best purchased on a € per tonne of dry matter basis



Summer 2018
- Are you and your family safe farm ready?



When you grew up on a farm there was no time more wonderful than those long summer months, school was out and it seemed the weeks ahead were endless.

On our own farm it also signalled the harvest, dad was out late and up early in a bid to keep on the right side of the weather forecasts. I still remember balancing pots of spuds on my knees as my mother drove through stubbled fields looking for the combine (no mobile phones).

To be honest, safety on and around the farm was not a topic of conversation back then. The only time I viewed the farm as anything other than safe was a TV commercial. It showed a typical farm yard where a young child had gone missing, only to be eventually found submerged in a barrel of water. It was hard hitting but effective as even today I can still remember how it made me feel.

Now living on a farm with a young family of my own it took the spate of farm deaths in 2014 to motivate me to bring the topic of farm safety into our home. We were just entering the toddler phase and viewed our home as nothing short of a disaster zone. Rounding off table edges and creating buffer zones around cookers and fire places. Yet as I watched my husband diligently bubble wrapping any area deemed a toddler hazard I realised the same principals were not being applied to our farm yard.

A farm accounts for just 6% of all workplaces in Ireland but currently it accounts for 50% of all

workplace accidents. So it is no wonder that a farm has been ranked as the most dangerous work place in Ireland for the past eight years. More dangerous than a mine, a construction site and a factory. But for so many of us this is not just a place where we work, it is also our home, the place we bring up our families.

Get the conversation started:

Ask your family - Are we, Safe Farm Ready!

In homes we talk about internet safety, road safety, fire safety, stranger danger, yet outside our back door is a farm where you can be poisoned, drowned, kicked and crushed, so, go on, take time to have the farm safety discussion.

Children are curious and natural learners, so encourage their natural instincts by keeping it simple. There will be plenty of 'Why's and How's' but that's good, they have tremendous capacity to not just take on information but to retain it.

By explaining how you carry out your daily tasks and the precautions you put in place, you could be encouraging your children to form the habit of a lifetime – habits that will save a life, time and time again. Focus on the basics and create an initial understanding, awareness and appreciation of the dangers that lie beyond the back door.



Some areas I focus on are:

◆ Safety Signs

Explain what the colours and symbols mean! Eg. Yellow and black is a warning sign, red is prohibitive and blue is mandatory. Show your children where you have signs in place and what the danger is, poisons, livestock, electric wires, etc.

◆ Slurry tanks and pits

Whenever I am doing a school workshop I use fizzy drinks to illustrate the agitation process and the release of the lethal and odourless, hydrogen sulphide. It is a simple but hugely effective technique. If you are agitating slurry, let your family know and explain to them what you will be doing and how you will keep safe. This will also give great piece of mind to those nearest and dearest to you.

◆ Animals

If you have livestock explain how their physical behaviour tells us if we are in any danger.

- Threatening eg. ears back, pawing the ground, tossing their head, showing teeth.
- Playful and interested, eg. Ears forward, wagging tails

◆ Tractors & machinery

Our biggest killer of young children on farms. Show your children where the blind spots are around the tractor. Remind them that they cannot be seen when you are driving and they are NEVER to approach a moving tractor. Set the rule - When the engine is on, stay away!

Also get into the habit of putting on a seatbelt, when it comes to a tractor the safest place for the farmer to be is inside the cab, using a seat belt means you have a better chance of staying there!

Safety Tips for summer

Over the summer children are home from school, cousins and friends may be visiting for a holiday. We have milder weather, brighter evenings, all of

which contribute to the likelihood of children being outdoors, nothing wrong with that! But the flip side of this is the seasonal nature of farming and the work over the summer months means long hours, more machinery in use and greater work pressures on farmers to get their hay and harvest in.

Separately these are the normal trappings of rural life, but when intertwined we have the potential for danger and tragedy.

I don't believe in keeping our children off the farm completely, it is a great way to educate them on enterprise, food production, animal care and husbandry. But do set age-appropriate jobs for your children to do. Take a look at some advice on this topic from the National Children's Center for Rural and Agricultural Health and Safety in the US at www.cultivatesafety.org/safety-guidelines

Some extra tips for you and your family this summer:

1. Make sure children are never alone on the farm.
2. When specific work, such as slurry agitation is planned, tell your family to stay away (and why).
3. Use farm visits as an opportunity to explain dangers with tractors, animals, chemicals, climbing bales, etc.
4. Allow your children to carry out jobs that are age-appropriate.
6. Explain what the various symbols mean on signage.
7. Set up a dedicated play area – farmyards are not playgrounds.
8. Have an action plan in the event of an emergency.
9. Keep your first aid kit stocked and accessible.
10. Show your children how you prevent farm accidents.

AgriKids

AgriKids was formed from a personal perspective to grow farm safety awareness and practice within my own family. It hasn't been easy but nothing worth having ever is. In fact in the early days I was amazed at the reasons and rationale as to why safer practices were not adopted.

'Sure it's always been done like this'. 'I haven't the time'. 'That would never happen'. Comments that were doing nothing but tempting fate!

However over time I have been fortunate to bring the AgriKids concept into schools, communities and homes. To the places and people who need it most.

Through engagement and education, we can empower our children to be farm safety ambassadors, creating dialogue directly in the home and encouraging farm safety practices today and every day!





Irish Grassland Association

DATES FOR YOUR DIARY

Dairy Summer Tour

24th July 2018

Annual General Meeting

6th September 2018

Student Conference and Farm Walk

8th October 2018

Dairy Conference

9th January 2019

