Irish Grassland Association

Newsletter Issue No. 26 December 2014

"to advance the knowledge of good grassland management in Irish farming"

Follow us on

Irish Grassland Association IGA

@IrishGrassland

CONTENTS

Irish Grassland Association

CORPORATE MEMBERS 2014

Irish Grassland Association

CORPORATE MEMBERS 2014

abp Food Group
ACCBANK
Acorn
AHI Animal Health Ireland.ie
AIB
ALLENNUTRITION
BASF The Chemical Company
Bank of Ireland
BARENBRUG
Barryroe
Bord Bia Irish Food Board
DAWN MEATS
DeLaval
Department of Agriculture, Food and the Marine An Roinn Talmhaíochta, Bia agus Mara
DEVENISH NUTRITION the agri-technology company
DRUMMONDS Limited
GERMINAL SEEDS
glanbia
GOLDCROP
GOULDING FERTILISERS Goulding Chemicals Limited
Grasstec
Grassland AGRO
interchem
JOHN DEERE
KUHN
keenan True Technology
KEPAK GROUP
KERRY AGRIBUSINESS
BUDDY KIERNAN MILLING STEWARTS ANIMAL FEEDS
MERIAL
MONSANTO
MSD Animal Health
munster cattle breeding group
NitroFERT
Nutribio Precision Nutrition
SEEDTECH An Arvum Group Company
Sheep Ireland www.sheep.ie
Shine The milk replacer made with real milk
Silawrap
Supermac's
TARGET FERTILISERS

Want to have your company logo on this page?
Contact the Irish Grassland Association office today...

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

ARK ANIMAL CARE FOR YOUR FARM
AgriNet The Modern Way to Run Your Family Farm
AGRITECH
Alltech ...naturally
ANIMAX veterinary technology
A.W. ENNIS
cc agricultural consultants
Charleville Refrigeration Services
CORMAC TAGGING LTD.
CORBY ROCK MILL Healthy Farming
Dairygold
DAIRYMASTER
dunbia
Durapak
FBD
Farm Direct PURCHASING GROUP
Irish Independent farming
FitzGerald SOLICITORS
Greenvale ANIMAL FEEDS
ICBF.com
Irish Dairy Board
IFAC ACCOUNTANTS NATIONWIDE
IRISH FARMERS JOURNAL The voice of Ireland's farming industry
IHFA
LALLEMAND LALLEMAND ANIMAL NUTRITION
LAKELAND DAIRIES
LELY –innovators in agriculture–
LIC
Maizetech Ltd
McHale
NOVARTIS
O'Donovan ENGINEERING
PREMIER MOLASSES Delivering Solutions
PROGRESSIVE GENETICS
provimi shaping tomorrow's nutrition
The Rea Group
eagasc Agriculture and Food Development Authority
TOWN OF MONAGHAN CO-OP
volac
WEXFORD MILK PRODUCERS
Whelehan CROP PROTECTION
YARA
zoetis

Want to have your company logo on this page?
Contact the Irish Grassland Association office today...

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

Irish Grassland Association President's Address

Dear Member,

Paul Crosson
President of the IGA 2014/15

Welcome to our final newsletter of 2014, another busy year for the Irish Grassland Association. As the year draws to a close it is timely to reflect on what 2014 brought for beef, sheep and dairy farmers. This year will be remembered as one which brought excellent grass growing and grazing conditions with grazing continuing on many farms into late November.

Dairy farmers also benefited from good milk prices although the outlook for 2015 is for price reductions. With the impending abolition of milk quota, these projected price reductions provide an important grounding for a sector which is expected to expand substantially post-quotas. The opportunities for Irish farmers post quota including lessons from New Zealand will be examined in detail at our dairy conference, sponsored by Yara, in Cork on 8 January (page 26-27).The importance of developing systems that can cope with market volatility is key – farmers that are focussed on producing milk from our cheapest and highest quality feed, grazed grass, are those with the greatest potential to prosper in this environment. The mission of the Irish Grassland Association, "to advance the knowledge of good grassland management in Irish farming" has never been more relevant. At our recent student event (page 5-7) the importance of grassland management was emphasised by host farmer Owen Brodie. It is also worth noting that both Owen and William Morris (Farmer Focus, page 18-19) highlight the importance of investing in grassland infrastructure rather than alternatives which have lower returns on investment.

Nevertheless, dairy expansion will challenge many existing farm facilities and indeed labour availability. The Irish Grassland Association are presently collaborating with Teagasc and other European partners on an EU funded project investigating the potential of robotic milking systems (page 8-9). This AUTOGRASSMILK project is evaluating the suitability of such systems for our pastoral production systems at Teagasc Moorepark and will provide some indication of the financial feasibility of robotic milking systems.

Beef farmers had a difficult year with prices declining substantially relative to the highs of 2013. Although costs should also be much lower than 2013 with the much more favourable weather conditions, margins are likely to be lower in 2014. The key challenge for farmers in this environment to reduce production costs so that the profitability is maintained. Co. Meath beef farmer Tom Halpin outlined his pathway to lowering production costs at the Irish Grassland Association student event (page 5-7). Tom's strategy centred around increasing the number of days grazing on the farm by improving grassland facilities and infrastructure. A further plank in Tom's strategy is to maximise output per cow by focussing on the key fertility traits. The importance of cow fertility and simplifying production systems is also captured in Tommy Moyles' review of American cow-calf ranch systems (page 20-21).

At this time of year, many of us turn our thoughts to those less fortunate than us and the charities that provide support to these people. James Hennessy's inspirational report (page 10 and 11) highlights the efforts of a small number of dedicated individuals to support farmers and rural communities in some of the most impoverished countries in the world. It is well worth reading James' report into how a small group are making an enormous difference in the Rift Valley province of Kenya. We should reflect on how we can best contribute to supporting such charities in the good work they do.

This year saw the sad passing of a former past president of the Irish Grassland Association and esteemed colleague Peadar McCanna. Peadar joined the council of the Irish Grassland Association in 1972 and served as president in 1983/84. On page 14, Sean Flanagan and Pat McFeely provide an appreciation for Peadar and the critical role he played in the development of a nascent Irish Grassland Association. Furthermore, Peadar made an enormous contribution to the Irish agri-industry in his role with the Department of Agriculture and latterly with Band of Ireland during a time of great change in Irish farming following accession to the European Economic Community. To his wife, Carmel, and family we send our deepest condolences.

Sadly, 2014 will also be remembered as one which saw the highest number of farm fatalities since records began with 27 fatalities. This is a substantial increase on the 16 fatalities in 2013. It is worth taking some time to consider that behind these statistics are bereaved families who are suffering the desperate loss of a loved one. Farms are the most dangerous workplaces with 55% of workplace fatalities occurring on farms despite having 6% of workforce. On page 12 and 13 Jim Dockery provides some important information on farming safely during the winter period. We would ask that readers pay particular attention to the tips provided.

Finally, can I wish all our members a very enjoyable and restful festive season and we look forward to meeting you at our 2015 events.

Paul Crosson

Paul Crosson
President of the Irish Grassland Association 2014/15

Student Conference Review

Adam Woods
Irish Grassland Association
Council Member and Teagasc

Donal Patton
Irish Grassland Association
Council Member and Teagasc

The 2014 Irish Grassland Association annual student conference was held on the Cavan/ Meath border to the dairy farm of Owen Brodie, Ryefield House, Virginia, Co. Cavan and the beef farm of Tom Halpin, Robertstown, Carlanstown,Kells Co. Meath. 265 students from UCD, Dundalk IT, Teagasc Kildalton, Teagasc Ballyhaise and Waterford IT and Teagasc, Clonakilty attended this year's event. Conference attendees were split in two groups, one visiting a dairy farm and the other visiting a beef farm. This year's conference had a forum at the end of the farm tours where students took part in a discussion about opportunities for both dairy and beef farmers in a post quota era.

This conference is unique in that it is the only conference which specifically caters for students in the country and it affords these students the chance to see hands on efficient, well run commercial beef and dairy farms. Students also get the opportunity to go into detail with the host farmers about the nuts and bolts of their business.

Beef Farm Walk – Tom Halpin and family
The beef venue this year was Tom Halpin and his family who farm at Carlanstown just outside Kells, Co. Meath. Tom is a participant in the Teagasc/Irish Farmers Journal BETTER farm beef programme and the farm has undergone a good deal of development since joining this programme. Tom farms 63 ha of mainly free draining land and operates a 90 cow suckling to store system calving cows in both autumn and spring. Recently he sold his mid-season ewe flock to concentrate on the beef end of the business and has increased cow numbers accordingly over the past few years. His cow type is predominantly a Limosuin/Simmental cross cow which is then crossed with a terminal sire Charolais bull. Tom has been very open to change since joining the programme and has made a lot of progress especially in the area of grassland management.

Farm Overview
The first stop on the day was the farm overview. Tom attended Warrenstown agricultural college and then began farming alongside his father. Tom also outlined the financial progress he has made since joining the BETTER farm beef programme. Gross margin has increased from €575/ha in 2011 to €767/ha in 2013 as a result of ceasing to rent con-acre, increasing stocking rate on the owned land and increasing sales and output. Tom explained his reasons for exiting sheep production, while he enjoyed working with sheep he felt that he would like to concentrate on the cow enterprise as he has spent a long time building up the genetics of the cow herd and is something that cannot be done quickly in the future. Sheep on the other hand can be purchased quite quickly at autumn hogget sales and you are back into production in 5-6 months.

Grassland Management
Tom has quite a dry farm; however, turnout dates in the spring had been quite late with cows going out in mid-April. One of the key focuses of the BETTER farm beef programme was to lengthen the number of days at grass on the farm and also install paddocks and drinkers to split larger fields to ease management of grass during peak growing times and increase the quality of the grass being offered to animals during the year. Tom explained to the students that with the help of his local Teagasc advisor, Ned Heffernan, they mapped out where the divisions were to be put and where the drinkers where to be placed in the larger fields. Tom says that this has really helped him manage his grass better and because he can close up in rotation in the autumn time he is now turning out stock in early March as opposed to mid-April. He is also measuring grass each week and simply calculating supply and demand of grass on the farm to enable him to take corrective action.

Breeding
Tom places a lot of focus on getting the right genetics on the farm to produce the type of animal that he wants to sell at the end of the year. Since joining the BETTER farm beef programme he has purchased two new stock bulls, one a Limousin by the famous Ronnick Hawk, which is used to breed replacements on the farm, and the other a terminal sire Charolais bull, which is used on all cows producing progeny for sale. Tom paid special attention to the calving difficulty score of each of the bulls as he says he is a one man operation and he cannot afford difficult calvings on the farm. This costs him time and money, not to mention the stress of going through a series of difficult of calvings. Tom is split calving which means he needs to be very disciplined on his breeding dates. Students on the day questioned Tom about why he does not just have spring calving. In his response Tom reverted back to the labour issue and calving 90 cows in 12 weeks would be a big drain on one person. Facilities would also need to be built if he chose this option.

Key Profit Drivers
Tom listed his Key Profit Drivers for his farm:

- High yields and efficient use of grass
- Perennial ryegrass swards, paddock system, rotational grazing and silage quality
- Good cow fertility
- Age at first calving, calving rates and longevity
- High milk yield
- Excellent weaning weights
- High liveweight performance
- Quality of feed, stockmanship, genetics and health
- Plan, implement and review

Dairy Farm walk – Owen Brodie
The dairy farm walk was held on Owen Brodie's farm where students were given an opportunity to see a large scale spring calving system in operation. Owen outlined the history of the farm and how it has progressed since he bought it in 1989. He explained that because the farm was bought this enforced immediate financial pressure and he had to focus on his costs of production and also prioritise his capital spending. By the mid-1990's he was milking 100 cows in a split calving system but he decided to focus entirely on spring milk production to reduce his cost base. Owen said that joining a discussion group was a major turning point as it helped him to focus on the really important aspects of his business - growing and utilising more grass, improving genetics and breeding management to achieve a tight calving pattern and good financial discipline. This focus has helped Owen to grow his business within a period where many others stayed static; he is currently milking 180 cows on a 59 ha block and all replacements are contract reared. Owen expressed his envy of the students present and told them he would love to be starting his farming carrier in a no quota environment where he believes many opportunities will become available for those brave enough to grasp them. He did however urge caution citing milk price volatility as a major risk especially during expansion phase.

Breeding
Owen's ideal cow is a medium sized cow capable of producing high levels of milk solids from a grazed grass diet and achieving a 365 day calving interval. Owen's herd EBI is €173 with a strong emphasis on fertility sub-index (€92). From 1997 to 2009 he used mainly NZ Friesian sires and since 2009 he has been using Jersey to achieve his breeding goals. The fact that his breeding policy has been strongly weighted towards fertility over the years has given Owen a strong base to work from, his calving interval last year 357 days and he calved 50% of the herd in 26 days. This consistently impressive fertility performance allows Owen to produce high levels of milk solids from grass (1100 kg MS/ha) while also presenting opportunities to expand because large numbers of surplus replacments are produced each year. When asked if he intends to continue to use Jersey AI he said 'I am very happy with the crossbred cows but I will only use more Jersey if we can source individual bulls of comparable quality to the Frisians.' He pointed out to the younger generation that the tools and information available today is light years ahead of what it was when he started farming.

Grassland Management
One of Owen's core principles of his production system is to produce high levels of milk solids from grazed grass. This high level of production is driven by a long grazing season which starts in mid-February and continues until late November. Supplementary feeds are kept to a minimum during the grazing season and are only used during grass deficits which are identified during the year by measuring and budgeting. Owen outlined to students that without good grazing infrastructure achieving 280 days at grass is impossible even on the driest of farms. Owen has improved his winter facilities however stated to students that this wasn't top priority in the early years of expansion. During the early years he prioritised investment in roadways, reseeding and soil fertility.

Summary
The main message from the day was to invest both time and capital in the areas which will yield the best return, grass, genetics and labour management. As farms expand the division of labour will become increasingly important and Owen's advice was to contract out as much of the machinery work as possible and concentrate on cows and grass. He also pointed out that as a farm business expands the farmer will spend less of their time dealing with cows and more of their time dealing with people, you have to learn how to get on with these people, this will come natural to some but will require effort for others.

Opportunities post quota for dairy and beef farmers
The discussion in the afternoon centred on the opportunities that the removal of milk quota will provide to both dairy and beef farmers. The opportunity for existing dairy farmers to expand is quite obvious and considerable scope exists on the average dairy farm where the stocking rate is low at 1.8 cows/ha and output per cow is also low at 350 kg MS/cow. This equates to 630 kg MS/ha which is about half the output achieved by the host farm, therefore MS output could potentially be doubled on the existing land base. In order to achieve this high level of output per ha replacement stock will need to be moved off the milking block and replaced with extra milking cows. This provides an attractive option for beef farmers to contract rear the young stock. Two members of Owen's discussion group, Ger Smith from Virginia and PJ Nangle from Slane, attended this session and contributed to the debate. The lads explained that quite a few of the group members have gone the contract rearing route which has allowed them carry more cows on the home block and also frees up more time for them to concentrate on the core principles of profitable milk production. Even though contract rearing arrangements can be altered to suit both parties a few basic principles should be adhered to:

1. Both parties must work well together and be comfortable communicating with each other
2. A formalised agreement must be drawn up at the beginning to provide clarity from the start
3. Using an independent third party to help iron out the finer details of the agreement is hugely beneficial
4. The agreement must be win win for all involved

While contract rearing seems the obvious opportunity, other ideas on the day were discussed which included producing fodder for dairy farms, fattening cull cows on contract and rearing the bull calves from the increased number of dairy cows. Opportunities were also discussed about breeding replacements for the dairy herd where issues around gestation length and type of bull used were discussed. The clear message on the day was that both dairy and dairy need to re-appraise their current systems and ask themselves the question are their new opportunities for their own farming system to become more sustainable.

AUTOGRASSMILK Project Update

Philip Donoghue
IGA Council Member
and Dairy Farmer

Autograssmilk is a research project set up to evaluate the compatibility of grazing systems and automatic milking (AM) or robotic milking as it is called here. The project has fifteen partners in six different countries, Ireland, France, Belgium, Netherlands, Denmark and Sweden. The perception of farmers in the different countries towards integrating grazing and AM could not be more different. On one hand in Ireland, the uptake of AM is slow due to the fear that the economic benefits of good grazing management may be lost or substantially reduced. Meanwhile in North Western Europe there are 10,000 dairy farms milking through robotic units with the expectation that by 2020 over 50% of the cows milked in Europe in new facilities will be done so through robots. Their concern on the other hand is that they are unconvinced that grass offers sufficient feed to their cows. Both views have to be catered for. Never the less the demand to deliver on integrating grazing and AM is high due to

1. The shortage of suitably skilled labour across all countries
2. The fragmentation of farm units hindering expansion in conventional units
3. The legislative and consumer demands for milk produced from grazed grass

The project is now two years through its three year term and as of yet it is too early to draw final conclusions. There are a number of different relevant areas being researched and these are called work packages.

Work package 1 titled "Optimum feeding strategies for dairy cows incorporating grazed grass with AM for various production systems in Europe". As well as the obvious work around the frequency of different grass allocations, the percentage of grazed grass in the diet and how to manage during grass shortages, his work package is also trying to determine whether output per cow with more milkings per cow or output per robot with more cows and less milkings per cow, is the correct route. Along with that there will be a breed trial in 2015, examining Holstein Friesians, Swedish Reds and Jersey crosses and whether there is a difference in performance in this system based on their breed.

Work package 2 titled "Optimise the integration of AM systems with cow grazing using new technologies". As part of this work package a rising plate meter has been developed, called a GrassHopper. It measures grass height and other grass characteristics which will be combined to assist the farmer in allocating an area for grazing more conveniently and accurately. The GrassHopper is now at the stage where it is being tested on some AM monitor farms. Other technologies on trial are a number of different sensors namely Smart Tag, Cowmanager Sensor, Heatime Ruminant, Rumiwatch and Lifecorder Plus. Sensors such as pedometers measure cow activity such as movement, resting, grazing and ruminating. This technology is already being used to identify cows on heat and is commercially available but in the context of the AUTOGRASSMILK project it is hoped to identify other issues that motivate cows to voluntary travel to the robot for milking apart from hunger. A Robotic Rotary parlour and a Mobile robot are also being evaluated as part of this work package.

Work package 3 titled "Increase the sustainability of an integrated AM and cow grazing milk production system". This involves evaluating the sustainability of the system under the headings of economic, environmental and social. A number of monitor farms in each member state have been identified and data will be used from these. The end result will see the development of a computer package called a sustainability assessment tool where farmers can load their specific data and produce a report on how sustainable their system actually is.

Work package 4 titled "Economic assessment of integrated grazing and AM technologies". Financial comparison is the true measure of success and this work package is in the process of completing an economic comparison of dairy farms using AM where grazing is practiced and where it is not, as well as comparing AM farm with conventional farms. Following on from that, the Moorepark system of economic farm modelling will be used to evaluate the interaction between capital investment, labour requirement and running costs. This particular work package is been led by Laurence Shalloo of Teagasc.

As the abolition of milk quotas fast approaches, farmer investment in the setup or expansion of dairy farms continues at pace. Milking facilities will be the biggest single investment that most of these farms will make so it is very important that each farm makes the correct decision in the choice of milking system, and AM systems will have a role to play here. If considering a robot then make sure you understand all aspects of the system and how it works. Don't let your fascination with how a mechanical arm attaches a cluster to a cow's udder be the driver. It is far more intriguing to understand how you get the cow to come in voluntary for milking while maintaining the correct balance for excellent grazing while not overusing concentrate feeding. For example is a good level of grass measurement skills a necessity to successfully operate an AM system? Such questions need to be answered before such an important decision is made. Don't rush in or compromise on your own research before you make your decision. Visit the Teagasc Dairygold Research Farm in Kilworth, Co Cork where the Irish element of the AUTOGRASSMILK research is conducted. Talk to people with responsibility for the management of the trial. See a grass based robotic system in action, understand it and then make your decision. After all that is the purpose of the AUTOGRASSMILK project, to provide you with independent answers to your questions. Good luck with your decision.

Construction of water pond

Development Pamoja

James Hennessy

Development Pamoja (meaning 'development together' in Swahili) is a community based organisation working with communities in Kenya's Rift Valley province in villages around the Mogotio district. The group was formed in 2010 by three Kenyans, namely Mary Waruguru, David Okinja and Gideon Kipruto and one Irishman, James Hennessy.

Farming is the primary focus of Development Pamoja as it is the major economic activity in the area. In addition we work in the areas of health, with an emphasis on disabilities, and education. The Mogotio district is a semi-arid area which experiences prolonged periods of drought punctured by short episodes of very heavy rain fall. This makes farming difficult to plan, which has a negative impact on many families in the area. As a group we have tried to emphasis farming practices that can help to make farming a more economically stable activity.

Demonstration farm

In early 2012 we purchased three acres in Sarambei village and developed a demonstration farm. Heavy rainfall in this area offers huge potential to harvest water so the first thing we did on the demonstration farm was dig a pond to collect water during the rainy season. The water is harvested from the road and filtered before entering the pond. Collecting water in the rainy season allows us continue farming activities during the dry season. On the farm we have also built greenhouses and set up open field drip irrigation demonstrations. Because water is scarce in the area, drip irrigation uses water more efficiently than flood irrigation and ensures that crops are more likely to reach maturity compared to crops dependent on rain. On the farm we run training for groups and local farmers to help them understand our methods. We have grown crops under irrigation and/or in the tunnel and crops outdoors in the natural environment so that farmers can see the benefits of irrigation and the greenhouses. Having a crop to harvest in this area can literally be the difference between life and death. Our demonstration farm does not just teach local farmers better farming practices, it also helps meet our administration costs as a group and helps to pay the wages of the four people who work for Development Pamoja.

Development Pamoja demonstration farm

Zero grazing project

In 2015 we will start a zero grazing project. The Mogotio area is populated by pastoralist communities where cows are not only seen as economically important but are also a status symbol. However, many of the indigenous breeds of cow are low yielding which means that many families do not have enough milk to sell, and indeed, at times, feed themselves. Additionally, the cows walk for hours looking for grass and water which further reduces their yield and exposes them to diseases such as foot and mouth which are easily transmitted at shared water points. We have built a cow shade, will sow grass (most farmers graze their on open plains despite owning land which could be used to grow grass) and will purchase three cross breed cows to demonstrate the potential of improving local breeds and also the benefits of the cows not having to search for grass and water daily.

Capital funding

All the ideas we are implementing on the demonstration farm are initiated to help improve the income of local farmers. A lot of the projects take a significant amount of capital to establish, and projects such as building greenhouses and digging ponds are beyond the budget of most of the locals. Furthermore the banking system in rural Kenya is still under developed. Therefore, when it is possible, we provide finance to local farmers and groups to help them adopt our ideas on their own farms. In 2012 we provided a local women's group with the capital to build a greenhouse and dig a pond with a volume of 120,000 litres. We have also helped a number of our neighbours with loans to dig ponds. These individuals and groups then pay us back monthly over a period of two or three years.

The ultimate aim of all these projects is so the local people in and around Mogotio will eventually be financially independent.

Health and Education

Our farming projects are complemented by health and education projects. We help to meet the cost of individuals who are suffering from health issues such as diabetes, cancer and HIV/AIDS. Our major focus in our health projects, however, is the disabled. To be disabled in Kenya is to live a very sad and lonely existence. Due to cultural beliefs and a failure of successive governments to implement a clear strategy to assist disabled people, these people are largely forgotten. In 2012 we started a program in conjunction with the Caring and Sharing Association (CASA) in Ireland to assist disabled people in and around Mogotio. When we first started the program we had thirty four participants. The program has grown steadily over the past two years and we now work with over one hundred people suffering from various disabilities in five villages. Each Saturday we hold a social in one of six villages around the Mogotio area. In these socials we have fun activities for the children and hold educational forums for the adults. We also provide those present with a hot meal. Apart from the socials we help to meet the medical treatment costs of those we assist. This medical treatment has greatly improved the quality of life of those we assist.

In 2014 Development Pamoja started building a medical dispensary close to the demonstration farm. The dispensary will be the first in Sarambei and will cater for all primary health services. Within the dispensary we are building a dedicated physiotherapy unit, which will be the first such unit in our constituency. More importantly it will mean no person we assist will be more than 20 km from receiving weekly physiotherapy (currently they have to travel distances of up to 150 km). This medical facility will be open in January 2015.

We provide educational support to over twenty children. In some incidences we pay the full school fees and associated costs for children to receive an education and in other cases we assist the parents/guardians to meet these costs, with the guardian also contributing financially to ensure the child goes to school. We also provide educational support to both disabled children and the children of disabled parents. In 2015 we are commencing a dedicated education programme and are currently identifying between ten and twenty children whose education we will fund up until the children complete secondary education. This program is still in its infancy. The aim is to not only educate these children but to shape their futures so that they can, in the long run, contribute positively in helping to build a vibrant society and an economically stable Kenya.

For further information please see our website www.developmentpamoja.org. Development Pamoja is a registered Community Based Organisation in Kenya and a registered charity in Ireland, charity number 19370.

Development Pamoja founders and group members Mary Waruguru, David Okinja, James Hennessy and Gideon Kipruto

Womens group greenhouse

Farm safely this winter

Jim Dockery
FRS Training

Winter Housing
The recent spell of wet weather has forced most farmers to house all their animals for the winter. Once an increased level of animal handling starts it increases the risk of accidents on the farm from livestock in particular. So farmers and farm staff needs to be very aware of these dangers when handling animals. A number of key areas are of particular concern.

- The crush and handling units
- Zoonotic diseases
- Entering pens with big numbers of cattle
- Attacks from cows with calves
- Handling Bulls
- Loading and Unloading

Handling facilities
Investment in good cattle handling facilities is probably the best value you will find on your farm considering the number of times animals are handled in a year. That investment will lead to increased safety for the farmer and for the animals themselves.

Remember: There is 40% grant aid available for the installation of safety facilities. See www.agriculture.gov.ie

- Install a good handling unit consisting of at least 2 holding pens, gates and barriers to be heavy duty galvanised piping
- Crush or race to be 6 m long (min)
- Pipe work in crush should consist of 3 or 4 rail heavy duty galvanised piping
- A good self-locking crush gate well greased and maintained is essential
- A wide step alongside the crush for 2 people to operate (min 600 mm wide)
- Consider a head scoop if doing a lot of dosing.

Zoonotic Diseases
These are diseases that are spread from animals to humans. Some of these diseases can be very severe and cause serious illness and even death.

- Best practice always when handling animal is to wear suitable Personal Protective Equipment (PPE) - gloves, waterproofs, etc.
- Always wash hands after handling animals especially with discharges or mucus, such as calving time, AI or routine dosing
- Use disinfectant after handling animals on boots to help control spread of diseases
- Management of diseases through vaccination, routine treatment, culling, etc. are necessary to ensure farmers do not suffer from ill health when handling and coming in contact with animals

Entering cattle pens
Once a farmer enters a pen with cattle there is an immediate risk of injury depending on his behaviour, the number of cattle in the pen and the size of the pen.

- Only enter the pen if it's absolutely necessary
- Allow some cattle out of the pen to ease risk of crushing
- Never enter a pen without having an escape route available
- Use a long stick to tap forward animals or turn them.

Bull handling
When moving bulls from the field a bucket with meal is helpful as it encourages him to come towards the gate and thus lowers the risk of having to enter the field, it also keeps his mind on food instead of the farmer.

Never allow children or elderly people into a field where there is a bull present, it is advisable to have a second person available when handling/moving bulls from fields to fields or to the yard. It is advisable to always have a companion with him when moving.

Loading and unloading bulls can be a very dangerous task, if the bull can be led it is recommended to use a long rope or bull pole, if loading onto a trailer or lorry feed the long rope up first and pass it to the second person outside the vehicle then follow the bull up while the rope is shortened as he moves along secure the gates and ramp and tie off rope from outside the vehicle.

All breeding bulls should be fitted with a ring at 10 months of age.

When dealing with a bull in the shed or in open yards, it is not safe to enter the pen without an escape route in place, it is preferable to have a proper bull pen in place for handling bulls, this pen should be well planned out, located in a bright airy location with a clear view of other cattle, all gates and bars should of sufficient strength and be well anchored, the pen should have a system in place for locking the bulls head so that the pen can be bedded down, cleaned out, etc. safely. The head locking system should be operated from outside the pen.
Another option is to have a second compartment so the bull can be moved into one area the gate or door closed from outside the pen, while the second area is being cleaned or bedded.
Some farmer's house bulls on slats with other cattle, if this is the only facility available then one should not enter the slats with the cattle. If bulls are housed in cubicles with heifers or cows there is a risk of bulls hurting cows especially in-calf cows so it is not a good practice.
If there are a number of bulls housed in the same area some may bully others which may affect their weight gain and may also cause injury to each other.

Safety Management Tips Summary

- Spend a little time on maintenance of your crush and sculling gate (don't be afraid to use the grease gun & oil can on the sculling gate)
- Have all your gates hanging before you plan to move animals
- Plan your job well, hang a gate instead of using a family member to stop animals
- Discard the holding bar at the back of the crush, hang a small gate instead, it's much safer
- Set up a work area for holding medicine/doses near the crush in a safe area to make things easier
- Wear disposable gloves they will prevent infections and keep them out of your body, thus better health
- Its better do routine tasks in the morning rather than late evening cattle are usually calmer, especially young bulls
- Avoid getting into pens with cattle as much as possible to avoid crushing injuries
- Always have a stick in your hand handling cattle, never to beat them but essential to control or turn them
- Never enter a pen with the stock bull when moving to the crush, always keep a gate between you and him
- Be very careful removing cows from young calves; always be prepared in case they attack

FRS Training run one day "Safe Livestock handling courses" for farmers and Marts and Lairages livestock handlers/drovers. More details contact Jim on 086-2569925

Jim Dockery Training Manager, FRS Training and farms at Towra Pedigree Angus & Shorthorn Herd and is a qualified Farm Manager. Jim has been part of the FRS Team for over 25 years. He became National Health & Safety Manager in 1999 and is currently Manager of FRS Training. Jim has vast farming experience and has a particular interest in promoting Farm Safety at all levels in Agriculture. He is Chairman of the Health & Safety Authority (H.S.A) Farm Safety Partnership High Risk Activities sub-committee.

Peadar MacCanna - An Appreciation

Sean Flanagan and Pat McFeely

Peadar MacCanna, who died at his residence in Sutton, Dublin on 19 November 2014, was a leading Council Member of the Irish Grassland Association during some of the most eventful decades in the development and progress of Irish agriculture, namely, the 1970's/80's. He was President of the Irish Grassland Association in 1983-'84.

He was elected to the IGA Council in 1972. At the time he was a leading Farm Management Specialist in the Department of Agriculture and Fisheries. With Ireland's entry to the EU coming down the track, he contributed significant input to the recommendations of the Study Group set up by the IGA Council to formulate a Development Plan for Irish Agriculture to be submitted to Government. This Plan exposed the weaknesses in Irish agriculture and the lack of Government commitments to the development of the very industry which hoped to benefit most from the opening up of new markets.

Following EU Entry, the 1970's were characterised by unprecedented developments and expansion in agricultural output accompanied by huge demands for finance and credit as capital investment in farming soared. During that time Peadar had a central role - the responsibility for the supervision and management of the World Bank loan. Amongst the many farm modernisation measures, slatted sheds for livestock winter housing and herringbone milking parlours were constructed for the first time. The World Bank project was widely recognised as a great success.

In 1977 Peadar joined the Bank of Ireland and was appointed Chief Agricultural Advisor, moving on to become Head of Marketing BOI, followed later by his appointment as Head of Bank of Ireland Commercial Finance from 1990 to 1998.

Following that momentous 1970's era of farm expansion, the cyclical nature of farming fortunes was evident at the end of the decade and into the early 1980's characterised by a steep drop in commodity prices and a dramatic increase in interest rates exacerbated by several years of bad weather. This resulted in a high incidence of farm debt and an air of 'doom and gloom' prevailed for a time. Peadar's influence within the financial sector resulted in a constructive and ultimately satisfactory outcome for many farmers.

Throughout this difficult period the IGA steadfastly fostered creative ideas and debates focused on likely solutions. In that context, the IGA owed much to Peadar's expertise in farm financial management and to his constructive inputs to the Council's agenda and programme content.

He was a leading participant in the IGA Overseas Study Tours aimed at the assimilation and import of relevant farm and agribusiness ideas adapted to the Irish commercial farming environment.

As it is today, financial sponsorship has always been an essential prerequisite for the successful implementation of the IGA's programmes and events. Peadar was especially helpful in securing Bank of Ireland sponsorship for conferences and farm and agribusiness study tours, including the International Meeting on Temperate Grasslands held in the RDS 1977 and the 12th Meeting of the European Grassland Federation held in UCD Belfield in 1988.
We convey our deepest sympathies to his wife Carmel and Family.

May He Rest In Peace.

Irish Grassland Association Council & Staff

Paul Crosson
President 2014-15
Research Officer, Teagasc Grange

Karen Dukelow
Vice President 2014-15
Teagasc Beef Specialist

Maura Callery
Office Manager

Pat Donnelan
IGA Council Member
and ICBF

Bridget Lynch
IGA Council Member
Lecturer
Grass & Forage UCD

Philip Donoghue
IGA Council Member
Dairy farmer

Jan Jensma
IGA Council Member
YARA

Adam Woods
IGA Council Member
Teagasc BETTER Beef
Farm Programme

Darren Carthy
IGA Council Member
Irish Farmers Journal

Rosalyn Drew
IGA Council Member
Drummonds

Kevin Farrell
IGA Council Member
Beef and Sheep Farmer

Michael Bateman
IGA Council Member
Dairy famer, Cork

David Cummins
IGA Council Member
Crop Evaluation and
Certification,
Dept. of Agriculture

Robert Prendiville
IGA Council Member
Research Officer, Livestock
Systems Department, Teagasc

Eddie O'Donnell
IGA Council Member
Dairy Farmer

Tommy Moyles
IGA Council Member
Beef Farmer

Bernard Ging
IGA Council Member
Dairy Farmer, Laois

Emer Kennedy
IGA Council Member
Teagasc Moorepark

Ronan Delaney
IGA Council Member
Sheep Farmer

Philip Creighton
IGA Council Member
Grassland Research Officer
Teagasc

Padraig Mulligan
IGA Council Member
Dairy Farmer

Cathal McCormack
IGA Council Member
Alltech

Deirdre Hennessy
IGA Council Member
Research Officer Teagasc

William Morris
IGA Council Member
and Dairy Farmer

Donal Patton
IGA Council Member
and Teagasc Ballyhaise

Donal Callery
IGA Regional
Development Officer
Farm Manager/Consultant

Noreen Begley
IGA Regional
Development Officer
Dairy Farmer

Council Members elected and co-opted at recent AGM

Pat Donnellan

Pat is married to Trish and they have two girls (Ruth and Jane). Pat lives in Cork city but is from Dublin originally. People are constantly confused and think Pat is from the country, this is due to the amount of time spent with his Mother's farming family in Tipperary and his Dad's in Galway. Pat enjoys GAA, squash, cycling.

Pat studied Agricultural Science at UCD and then did a Masters in Animal Breeding at Edinburgh University. Pat started work with ICBF in 2000, based in their Animal Evaluation Unit. As the Organisation has grown over the year's Pat's role has changed within the area of Genetic Evaluations, e.g. of some of the main areas include: Animal Events, AI Approvals, Active Bull Lists, Linear Scoring, Gene Ireland Progeny Testing, Weight Recording and Sheep Ireland. In 2006, ICBF set up the HerdPlus service within ICBF. This is a cattle breeding information service which extracts data from the database for individual herds and sends the herd owner back out reports that allow them make better breeding and management decisions with. Pat has been and continues to be heavily involved in this area designing, testing and launching new Beef and Dairy Reports, as well as providing phone support to farmers and presenting at meetings.

Ronan Delaney

Sheep Farmer

Ronan farms with his parents Michael and Kathryn at Gaulstown, Co. Meath. Ronan is the third generation on this farm, purchased by his grandfather Kevin in 1951. The out farm has been in the family for four generations. Ronan lives off farm with his partner Fiona and daughter Eppie. Ronan and his parents run a sheep and beef enterprise and also have a small herd of pedigree Belted Galloway cattle. In the late 1980's a farm guesthouse enterprise was started and in 2000 some old horse stables were converted into self-catering accommodation units. Over the years the farm tourism has been a vital source of income and a fantastic business to be involved with.

Ronan went to college in the UK and travelled for a year to Australia I returned to Ireland and took up off farm full time employment, reluctantly. His joining the PAYE sector was just about the time of the first shoots of the Celtic tiger. Ronan got involved in the construction industry working for a brick and slate importer for 7 years. He then became a real victim of the tiger and started working in the housing sector, all the while helping at home every evening and weekend. Ronan finally returned to farm full time in recent years. He writes a weekly article for the Irish Farmers Journal on-line edition.

William Morris

Dairy Farmer

William is a 31 year old dairy farmer from Ballydehob, West Cork. He completed the Advanced Cert in Dairy Herd Management at Clonakilty Agricultural College in 2004. William was awarded the 2005 FBD Student of the Year. Since 2005 William has increased cow numbers from 35 to 86, and increased the milking platform from 26 ha to 40 ha in 2014.

Current KPI's are:

- 10 t DM/ha grass grown to date in 2014 and 46% reseeded in 2014.
- Predicted 2014 milk solids production is 365 kg/cow or 0.76 kg MS/kg LW
- 6 week calving rate in 2014 was 89.5% with a 15% replacement rate
- 78% of cows and 100% of heifers held in 6 weeks this year, with 5% not in-calf after 12 weeks

Given the heavy nature of the farm William has a huge passion in finding complementary genetics both in grass and cows. As a result he is participating in the Teagasc cultivar evaluation. William is a former monitor farmer for Drinagh co-op.

Donal Patton

Donal is a dairy research technologist employed by Teagasc and based at Ballyhaise Agricultural College. He studied Agricultural Science specialising in animal and crop production at UCD and graduated in 2004.

Donal has been working at Ballyhaise since 2008 as part of the dairy research and extension programme that was established in 2005. The main purpose of this project is to develop sustainable grass based systems of milk production which are suitable for farms in the northern regions and also on farms with more difficult soils. In addition to looking at issues such as supplementation feeding strategy, overall farm stocking rate, farm fragmentation, cow type and calving profile for the region the project fulfils an important demonstration role where local farmers can see an efficient grass based system in operation within their own environment. Ballyhaise host up to 40 discussion groups per year from all over the country as well as running open days and smaller targeted events.

Irish Grassland Association Newsletter No. 26 December 2014

Council Members elected and co-opted at recent AGM

Kevin Farrell

Beef & Sheep Farmer

Kevin farms 76 ha just outside Ballymahon in Co. Longford with his wife Mary and sons Oisín, Patrick, Ríoch and Enda.

Traditionally the farm carried a herd of 60 suckler cows and 230 ewes. The suckler herd comprises mostly of continental type cows calving down in both the autumn and spring. One of the main focuses on the farm over the past five years has been to drive up output and reduce costs through improved grassland management. The adoption of better grassland management practices along with the implementation of a reseeding programme has provided the Farrell's with the opportunity to establish the dairy calf to beef enterprise.

Tommy Moyles

Beef Farmer

Tommy graduated from CIT in 2005 with a Bachelor of Science in Agriculture degree. He manages the cattle enterprise on his family's pig and beef farm at Ardfield, Clonakilty, Co. Cork and run a herd of 60 Simmental cows taking progeny through to beef. An annual reseeding program and soil sampling are two of the most important practices that take place on the farm. Tommy is the chairman of the Clonakilty Beef Discussion Group, a Nuffield Ireland Scholar and former Vice-President of Macra na Feirme. As part of his Nuffield scholarship Tommy studied grass based suckler systems around the world. He is also a weekly contributor to the Irish Farmers Journal.

Cathal McCormack

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

Darren Carty

Darren has served one three year term on the Irish Grassland Association Council and as held roles such as chairing and participating in the sub-groups organising the annual Sheep Conference and Student Conference during his term. Darren is a regular contributor to the Irish Grassland Association newsletter.

Darren comes from a mixed farming background in Galway. Before taking up the role of Sheep and Beef Reporter at the Irish Farmers Journal, Darren worked with Teagasc in Galway. His role in the Irish Farmers Journal is to inform and advise farmers on markets and management issues that will positively influence their enterprises and increase potential profit.

Retiring Irish Grassland Association Council Members

Andrew Crommie

Paidi Kelly

Heinz Eggert

John Noonan

Farmer Focus

William Morris
IGA Council Member
and Dairy Farmer

I am a 32 dairy farmer milking 86 cows on a 42 ha farm consisting of heavy clay soils with poor permeability just outside the village of Ballydehob in West Cork. My story begins in 2003 when an opportunity to consolidate my parents fragmented farm system arose, and I went into a 50/50 partnership with them to purchase a 26 ha milking platform. Today the milking platform is 42 ha (16 ha leased) with no remaining out farms. All of this consolidation took place this spring (2014) when an opportunity to lease an adjoining farm came up and as a consequence, it was decided to lease the two out farms as each were over 30 km away.

As a result it has been a busy year bringing this land into production. To get the best return a lot of drainage, reclamation and infrastructural work had to be carried out on this land. Some of the fields, for example, are back in grass production for the first time in over 20 years based on aerial maps. As I am a participant in the Teagasc grass variety trial all paddocks were sown with monoculture varieties. Up to 9 different varieties were sown in 13 different paddocks. Diploids used were Drumbo, Majestic, Tyrella, Aberchoice and Glenveagh while the tetraploids sown were Twymax, Kintyre, Abergain and Aston Energy. Tetraploids were noticeably better during the year in terms of production and digestibility but 2014 was an ideal year for a heavy farm.

Average grass grown in 2014 so far is 11.5 t DM/ha with a range from 18 t DM/ha to 2 t DM/ha. The paddock with a yield of 2 t DM/ha spent the year being reclaimed and drained and as a result only got reseeded in late autumn. Having reseeded 46% of the farm this year the plan is to reseed 15% of the farm annually from now on. Last year's soil tests showed that only 25% of the farm was index 3 for P and K . A plan was drawn up to remedy these results. To monitor progress 50% of the farm is soiled sampled each year to detect deficiencies early.

Since taking over the farm cow numbers have increased from 35 to 86. As the current replacement rate is 15% there will be only minimum expansion in cow numbers over the next few years with more emphasis being put on output per cow and increased efficiencies. All replacements heifers are reared on farm giving an overall farm stocking rate of 2.6 LU/ha.

Herd EBI is currently €171 with milk contributing €47 and fertility €100. My ideal cow type is no different from anyone else. I am looking at breeding an efficient, high fertility, easy care, compact cow. To date chasing these targets have resulted in a herd calving unassisted with a 6 weeks calving rate of 90% and a body live weight to milks olids ratio of 78% (478 kg LW and 365 kg MS/cow). Quota management has contributed to this figure so next year will be a better measure of where the herd is in regards to achieving this target.

Calving started on the 10th of February and cows are out full time from the day they calve. Half the herd was calved by the 24th of February with 90% of the herd calved by week 6 and 100% calved by week 8. This calving pattern however was achieved on the back of a high empty rate of 11% and as a result it was decided to breed for 11 weeks in 2014. In order to achieve this 90% 6 week calving rate I start pre-breeding management at calving (10th of February in 2014) with the tail painting and body condition scoring of all freshly calved cows. All heats, no matter how early, are recorded and any cows not cycling 40 days post calving are put on OAD milking. Any cow still not cycled 3 weeks prior to breeding start date (5th of May in 2014) is scanned and treated and as a result of all this a 100% submission rate was achieved this year. Overall results for the breeding in 2014 are a 78% of cows in-calf at 6 weeks with 100% of heifers in-calf in two weeks with an overall empty rate of 5% after 11 weeks breeding. Disappointingly of the five cows not in-calf four had held at one stage but lost embryos. The main bulls used this year were all crossbreds - WZR, KKH, PWR, YMD, TJH, OKA and ZSP (average EBI €246) with the main criteria to pick bulls being low milk volume - less than 200 kg, milk solids +30 kg, -3 CI, +2.5 survival and 1 or less for calving difficulty. To increase herd fertility going forward I will only breed replacements from the first three weeks of breeding so only cows that hold first time will have offspring in the herd in the future. When the first three weeks of breeding is finished stock bulls are let out with easy calving beef A.I used just in case bulls are not working.

Cows are all dried off by now with enough quota left over to produce unrestricted next spring. The main aim now is to get all cows in good condition to hit the ground running next spring and as a result have been split into three groups, under condition, maintenance and restricted feeding. The longer than normal dry period will help with cow condition and the aim is to push all lighter cows up to the correct condition score by new year. Results from the bulk milk sampling showed the herd had a very high readings for both fluke and neospora and as a result action will be taken over the dry period. With regards fluke all cows will be dosed with Zanil straight away, three weeks later I will dose with Fasinex 240 and finally a week later they will be dosed with Albex. Neospora was put forward as a reason the four cows dropping embryos and as a result blood sampling of the herd will be undertaken this winter to identify all PI's. Due to the high reseeding rate this year and the leasing out of all my out farms, winter feed was way behind where it needed to be with only one third of the required levels being filled by current silage stocks. As a result the gap is being filled by purchased straw and meal.

Cody McDaniels Red Angus cows

Farmer Focus

Tommy Moyles
IGA Council Member
Beef Farmer

Beef Production in the American Midwest
Tommy Moyles, Beef Farmer and Irish Grassland Association Council Member

In April I had the opportunity to travel to the American Midwest and beef cattle country. The trip included visits to a number of beef cow ranches, feedlots and Cargill's meat plant in Schuyler, Nebraska.

American producers do not have the luxury of CAP payments and while they own a lot of land, environmental conditions are tough. They have been operating in severe drought for a number of years and have not had a year with more than 300 mm of precipitation since 2002. Often up to 150 mm of this is in the form of snow. Due to these conditions and limited forage stocking rate is one cow to 8-12 ha. The target carcase weight is 270 – 330 kg. A view through the killing floor of Cargill showed the consistency of carcase was a standout feature of the visit. Stock are finished between 14-16 months on a corn fed diet. A store period was seen as inefficient and increased lifetime cost of the animal.

Why spend time analysing the perfect sized cow? The ideal sized suckler cow is the cow that brings a calf to the weaning pen and is back in calf when she does so and achieves this with minimum inputs. These were words echoed by Alex Laseter, manager of the Beefmaster foundation herd in Matheson, Colorado. This is a composite breed developed by his grandfather, Tom Laseter, in the 1930's from a combination of Brahman, Hereford and Shorthorn cattle. What makes the herd unique is it has been a closed to all outside genetics since it's formation. A clear breeding season and culling policy has defied scientists who said a closed herd like that could only last 15-20 years before genetic deformities occur.

Visual appraisal has no place in putting together a cow herd said Alex when quizzed on his heifer selection policy. You cannot see fertility. He combines his philosophy of planning and working intelligently with his grandfather's principal of "you do some of the thinking and let nature do the work". Every heifer born in the herd is considered for breeding, heifers showing any defects are identified at weaning with everything else being put to bulls for six weeks. They are pregnancy tested a month after. Alex feels that farmers are losing a lot of fertility from their herds by using their eyes to judge an animal instead of a limited breeding season to select their future cows.

Kit Pharo has a ranch in Eastern Colorado and is a firm believer that you match your cow to your environment rather than create cost and try to force your environment to match your cow. He developed the Pharo Cattle Company which has 29 producers all supplying bulls for sale through this brand. His sales this year saw

Irish Grassland Association Newsletter No. 26 December 2014

Tommy hand feeding Alex Laseter's in-calf Beefmaster heifers

record prices as ranchers realise the value of bulls reared to their surroundings with no grain feeding. Using natural selection in conjunction with a set breeding season he has seen a herd of low maintenance cows develop. This has led to a smaller cow capable of delivering a calf 50% of its body weight at weaning which suits the American market.

I was also lucky enough to meet Cody McDaniel, who I had been following on twitter and is a producer for Pharo Cattle Company, I felt it was important to get the view of the producer on the ground and see what challenges they face as well as the idea makers. After a successful calving period in 2012 Cody was faced with the decision of culling efficient cows that were performing or reducing the amount of heifers entering the herd. Not wanting to visually cull heifers he simply ran a bull with them for 24 days instead of six weeks. This also acted as an experiment to see how many would show up in-calf. He achieved 76% in-calf. Laseters and Pharos heifers ran with bulls for six weeks and had 78% in-calf.

Data recording plays an important role in all these herds. Cody tags, weighs and gives each calf a vigour score from 1-5 based on the initial get up and go of the calf. Cows are also given an udder score of 1-5, she is also scored on her docility at calving as this is the time when she is likely to be most defensive.

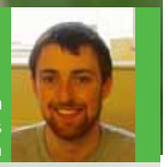
Fertility and its associated benefits are the key drivers behind American beef cow systems. Next in line for the producers I visited was docility. As they farm in an extremely isolated environment maintaining quiet stock is essential. Alex Laseter extolled the virtues of training animals to follow him, it saves time, labour and money. At weaning all the animals are held in the collecting pen and he takes the time to go among them and feed them until they are eating calmly from his hand. When this happens they are let out and no animal is let out to pasture until they all conform to this. He said it takes 5-7 days for all animals to be own over. Taking a drive around the 325 ha paddocks of freshly weaned heifers and in-calf heifers, the benefits could be seen. As soon as they saw the jeep it had a pied piper effect and all animals followed us. It removed the need for extra help and the costs associated with labour. It was possible for me to hand feed his stock bulls.

What struck me about all three men was how they had simplified what we in Ireland spend hours talking about, the ideal sized suckler cow. Fertility is the key in suckler cow production here with docility next in line with everything else a long way back. It is the reason why they are able to maintain large herds with minimal labour and low time input.

Investigating the grass intake potential of the ewe during early lactation.

Tommy Boland
UCD Lyons
Research Farm

Frank Campion
UCD Lyons
Research Farm



Lamb growth during early lactation is almost completely dependent on the nutrients obtained from milk and in most cases lamb performance is limited by milk yield. During early lactation the lamb is extremely efficient and can convert one kilogram (kg) milk dry matter (DM) to one kg of body weight gain. Ewe milk has a DM content of approximately 20%, meaning that to support one kg of lamb live weight gain the ewe must produce five kg of milk. Optimising milk production during this time is therefore crucially important. There are a number of factors that will influence the ewe's ability to produce milk including her age, genetic make-up and litter size. However, ewe body condition score (BCS), and her potential to mobilise her body reserves during periods of energy deficit, along with the diet will have the biggest influence on milk production and lamb performance.

Late pregnancy is often the main focus of nutritional management of the ewe and while this period will influence subsequent milk production, early lactation is the period of greatest nutrient requirements (Table 1). The energy and protein provided from consumed feed alone are generally not sufficient to meet these requirements as intake, which peaks at approximately seven weeks after lambing, for a twin bearing ewe lags behind milk production, which peaks at three weeks after lambing. Therefore body reserve mobilisation is an essential component of the early lactation energy supply of the ewe.

Ewes in the correct BCS at lambing (3.0-3.5) can be allowed to lose at least 0.5 units of body condition between lambing and weaning. However, ewes that are too thin at lambing will not have this reserve to draw on, and consequently milk production and lamb growth rates will suffer. Additionally over fat ewes will also negatively impact performance. Research has shown that ewes with excessive body reserves at lambing have a reduced intake potential during lactation leading to both excessive body reserve mobilisation (and potentially associated ill health) or reduced lamb performance.

This increase in requirements and mobilisation of body reserves places a high physiological stress on the ewe, which is often combined with a change in diet type and environment. Typically ewes in mid-season lambing flocks are turned out to grass after lambing and may or may not be supplemented with concentrates. Good quality perennial ryegrass based swards should provide approximately 12.2-12.4 MJ ME/kg DM.

The energy content of well managed good quality grass compares quite favourably with barley (13.2 MJ ME/kg DM) on a cost per MJ ME basis. It costs 8 cents to produce one kg of utilisable grass DM, depending on inputs, farm type, etc. Barley, on the other hand will cost close to 15 cent/kg DM, making grazed grass a much more attractive option. Given the difference in the cost between grass and cereal based concentrates the benefits of concentrate supplementation need to be defined. One of the key questions in defining its benefit is to firstly quantify the grass intake ability of the lactating ewe, and secondly to investigate how concentrate supplementation impacts on overall DM intake.

This year, an extensive study was set up at UCD Lyons Research Farm to answer this question. For this study, 54 twin bearing ewes were individually penned for the first seven weeks of lactation and offered one of three diets:

- **Ad-libitum** grass only,
- **Ad-libitum** grass and 500g of concentrates daily for the first three weeks of lactation,
- **Ad-libitum** grass and 500g of concentrates daily throughout the first seven weeks of lactation.

Grass was harvested and sampled each morning from swards averaging 1100 kg DM/ha. An 18% crude protein ration was used to supplement grass intake according to treatment allocation, the composition of which is given in Table 2. Data recorded included weekly ewe and lamb live weights, weekly ewe BCS and back fat measurements, indicators of rumen fermentation (pH, VFA and ammonia levels; day zero and seven of the experiment), blood metabolites (three times during the study), milk yield and milk composition data (five times in seven weeks) in addition to individual daily intake.

Analysis of this data is still at a preliminary stage but the initial results indicate that where sufficient good quality grass is available to the ewe supplementing with concentrates does not offer any benefits in DM intake. Ewes receiving grass and concentrate supplementation throughout the study consumed 1.65 kg DM of grass compared to 1.95 kg DM of grass by ewes offered grass only. Overall DM intake, which averaged 2.05 kg DM across the three groups, did not differ between the three dietary treatments. This shows that concentrate supplementation was being used by the ewe as a substitution for grass. Ewes that received concentrate supplementation for the first three weeks of lactation had a lower grass DM intake compared to grass only ewes while concentrates were being offered. Grass DM intake of these ewes increased quickly to the level of the grass only group once concentrate supplementation ceased.

Feeding concentrates, where there is adequate grass, is therefore reducing the quantity of grazed grass in the diet rather than improving the overall DM intake of the ewe. This puts in focus the benefits of grassland management on sheep farms and highlights the importance of closing off paddocks in time in order to have sufficient grass for lactating ewes and their lambs the following spring. Paddocks need a rest period of 120 days between closing and expected spring turn out date, meaning flocks lambing around the 17th of March would need to be closing paddocks from the 17th of November.

Table 1. ME and MP requirements of an 80kg, twin bearing, ewe during the final two months of pregnancy and the first three months of lactation (adapted from AFRC, 1993).

		Month of Lactation					
Ewe Liveweight (kg)	**Ewe Liveweight Change (g/d)**	**Lambing**		**1**		**2**	
		ME (MJ/d)	**MP (g/d)**	**ME (MJ/d)**	**MP (g/d)**	**ME (MJ/d)**	**MP (g/d)**
80	0	20.2	137	34.3	309	28.8	260
	-50	-	-	32.3	303	26.8	254
	-100	-	-	30.5	297	24.8	246

Table 2. Composition of concentrate offered during early lactation.

Ingredient	Inclusion Rate
Barley	40%
Beet Pulp Nuts	22%
Distillers Dried Grains	20%
Soya bean meal	14%
Cane Molasses	2%
Minerals	2%

Is profit really the bottom line?

Kevin Connolly
Teagasc, Coolshannagh, Monaghan, Co. Monaghan

Summary

- After profit is made you still have decisions to make on how it is best distributed
- You can exert better control on the distribution of profit by regular monitoring of discretionary or free cash.

Introduction

I often hear farmers comment on the fact that while they see a figure labelled profit on their accounts or Teagasc Profit Monitor and it looks fairly healthy, they don't seem to have the money to match the profit.

Farm businesses are run to make profit. Generally the bigger the profit the better the farm has performed. Farms need to be profitable to continue to stay in business and to ensure that the business owners get a reward for the time, effort and money they have invested. Here is an example of how profit is calculated:

Sales		900
Plus increase in livestock inventory		+100
		1000
Minus		
Cash Costs		600
Interest		100
Depreciation		+100
		800
	=Profit	200

The manager's job does not finish at the bottom line

The profit figure arrived at after a full year of business is often called "the bottom line". But is this really the bottom? Are there any further decisions for the owner to make once the profit is made?

While the farm is generating profit month by month, that profit is also being funnelled in different directions to cover the following demands:

- Paying tax
- Repaying farm debt
- Drawings/living expenses for the farm owner

Investing in new assets

Paying Tax – for some people, being profitable can be a double-edged sword in that higher profits mean higher taxes. Taxes are just another expense - albeit not a tax-deductible one. Taxes should be planned for, controlled (legally!) and paid without putting pressure on business cash flow. It is good practice to create a bank standing order from the business account to a separate account to have a tax payment fund in place so when tax return time comes around the funds are there to pay it.

Repaying farm debt – paying back the original amount borrowed – also called the principal. This is different from interest, which is the cost of borrowing, and is already deducted in the calculation of profit. Both the principal and interest are combined in the loan repayment that is made at regular intervals. While the interest is deducted in the calculation of farm profit the principal is not and so part of the profit must be targeted at repaying it.

Drawings/living expenses – this is cash required by the farm owner to meet personal commitments. These commitments include family living needs, family savings and potentially saving for retirement using pensions. Many owners also operate a bank standing order for a fixed amount from the business account to a personal bank account to cover weekly living expenses with the flexibility to withdraw extra when required.

Business (re)investment – investment here refers to new investment and not to replacing an asset which was

already in use in the business. Any replacement of existing assets is not included as it is already accounted for in the calculation of profit through the depreciation charge. Examples of the type of new investment could be cash invested in new machinery, buildings/facilities or land any of which could also be part financed by new borrowings. It also covers cash that is left in the business bank account, unspent at the moment but which will be spent on business assets in the future. For a farm in expansion mode this investment can also be seen in the build-up of breeding stock numbers on the farm which are factored in to the calculation of profit through the inventory change figure.

Following on from our previous example, next we will show how the profit made was allocated on this farm:

= Profit	200	
Allocated to		
Tax Paid	10	
Debt Principal Paid	30	
New Investment	110	
Drawings	50	200

So we can see that during the year the full amount of the profit has been completely used up. This allocation of profit happens every year for every business and it explains why you can't just pocket the profit at the end of the year and head for the hills. It also backs up the well known fact that "Profit is not Cash".

In allocating the profit to these areas there are decisions to be made as there is only so much of this profit to go around; too much earmarked for one area means less for the others. Of these areas there are certain cast-iron commitments which must be met – paying tax and paying back money owed are two definite items. After that there is some discretion in the allocation of "what's left" or the discretionary/free cash.

Calculating Discretionary or Free Cash

Having a clear idea of the Discretionary Cash (also called Free Cash Flow) would give a better indicator of how much is actually left after we have spent what is required to run the business and meet necessary obligations. This is a real cash figure that exists and that the business manager can decide to spend as they wish. By revisiting our example and showing the calculation of this cash measure alongside our profit calculation we can highlight the differences between the two.

To arrive at the cash amount within your control then you must exclude the non-cash items (livestock inventory increase and depreciation) that were used in the calculation of profit. You deduct the amount needed to cover tax and debt repayment and "what's left" is what you have freedom to distribute. You will notice that the figure for "New Investment" is excluded in the calculation of discretionary cash even though this appears to have already been mostly allocated in the build-up of livestock inventory. The payment of drawings is also assumed to be within your control as to the level of payment.

Using this information to make decisions

So in this example the discretionary cash amount of Ð160 can be spent whatever way the owner pleases. Some of the possibilities for this include:

- Withdraw it from the business as either necessary or additional drawings – there will be a normal drawing amount that the owner feels is necessary. If the free cash amount is large enough then the drawings amount could be increased and the owner can treat himself and his family in the sure knowledge that the business cash flow will not be detrimentally affected.
- Invest it in the farm business – this could be on building up stock numbers or on fully or part funding the purchase or building of new business assets such as land, machinery or facilities. Alternatively the decision could be made to invest this in a deposit account i.e. bank the funds in the expectation of an investment in the future or keep it as a 'rainy day' fund in expectation of the next challenging year.
- Make accelerated debt repayments – for some reducing debt to a manageable level is seen as a priority and the option taken may be to divert a share of the free cash to paying down business debt quicker. Reducing debt has the effect of reducing the overall interest bill and by moving the debt:asset ratio in a favourable direction it can set the business up for future borrowing for investment. Reducing the debt burden and thereby increasing the owner's share of the business can also give the owner a sense of satisfaction as well as peace of mind.

The only fool proof way of getting a handle on this free cash amount is by monitoring cash flow and combining this with a forward cash flow budget. These words may strike fear into the hearts of those that feel they do enough office work as it is but it is the only way of really taking full control of farm financial decision-making. Many Teagasc clients currently use the Teagasc Cost Control Planner cash tracking tool for the purpose of monitoring and budgeting cash flow. The feedback from farmer users of this tool is that using it to track cash helps them keep tabs on business spending and makes it easier to plan forward for spending during the year without causing a cash flow crisis.

Conclusion

While Net Profit will always be an important measure to track business performance, monitoring Discretionary Cash will give an even better indication that the business is moving in the right direction. Quantifying the available discretionary cash and making an informed decision on which of the above three options to spend it should give the farm business owner confidence that spending and investment decisions have a greater chance of being the correct ones. This feeling of "control right to the finish" in the business is the missing link for some business owners in helping them to be confident in their ability to manage for maximum return.

Preview: Irish Grassland Association 2015 Dairy Conference

Emer Kennedy
IGA Council Member
and Teagasc Moorepark

The annual Irish Grassland Association 2015 Dairy Conference will take place on Thursday 8th January at the Radisson Blu Hotel, Little Island, Cork. This year's event has a very exciting line up of speakers covering a range of topics. The conference will focus on dealing with the last three months of quota, growing more grass, pathways into dairying and valuable lessons learned from New Zealand.

April 2015 will see the removal of quotas and the potential for the most dramatic change in the Irish dairy industry for the past 30 years. Maximising grass growth and utilisation on farm are key components of profitable milk production systems. Getting the balance right between pre-grazing herbage mass, grass quality and grass growth impacts on the productivity and utilisation of grazed grass on farm. In the first session of the conference Dr. Brian McCarthy, Teagasc Moorepark, will outline research findings in terms of growing more grass using different perennial ryegrass cultivars and white clover. Donal Patton, Teagasc Ballyhaise, will share his experiences of using high stocking rates to utilise more grass. Michael Doran, Dairy Farmer, Co. Wexford will tell delegates how he manages his grass to grow 16 t DM/ha in a newly developed dairy enterprise.

As cow numbers have increased over the past few years many farmers may be over quota by the 1st of April next. The first three months of 2015 will be critical to reduce potential superlevy fines. Matt Ryan, Dairy Consultant, will explore options to manage the last few months of quota and minimise superlevy costs. Matt will also speak about planning for the future focusing on risk management, particularly around milk price volatility. Joe Leonard, Dairy Farmer, Co. Meath, will outline his plans for the last three months of quota. There will be a lot of time for discussion in this session so farmers will have plenty of opportunities to ask questions about options which may suit their system.

Dairy farming is now a very attractive option for young people interested in farming, however, they may not have the opportunity to manage their own farm. Equally there are a number of farmers with no successors to take over the family farm but yet they do not want to sell it. What are the options available? Austin Finn, The Land Mobility Service, will give his recommendations on how to deal with the fears, needs, wants and expectations of different people considering collaborative faming and what they will need to enter an arrangement. Tom Curran, Teagasc, will give an overview of collaborative farming options and the structures which need to be put in place.

The final session of the day will be of great interest to all delegates. Once quotas are removed many farmers intend to increase concentrate input but perhaps they should wait until they have heard Dr. John

Roche, Principal Scientist for Animal Science at DairyNZ speak. John, a Kerry native, who is working in New Zealand has seen a dramatic change in the New Zealand dairy industry over the past number of years. Concentrate input has risen substantially but farmers are not necessarily making more money. John will answer the question 'Post quota: will you make money from milk or milk from money? Lessons from New Zealand'

On the morning of the 2015 Dairy Conference, there is an opportunity for Irish Grassland Association corporate members and members to meet at a breakfast gathering at which a guest speaker will attend.

If you would like further information on the breakfast gathering or the conference please contact the Irish Grassland Association on 087 9626483.

Date for your Diary 2015

Dairy Conference
8th January Cork

Sheep Event
15th May

Beef Event
30th June

Dairy Summer Tour
28th July

Interested in joining a clover monitor group?

Teagasc Moorepark are establishing a monitor group to investigate the potential of incorporating white clover into perennial ryegrass pastures at farm level. If you are interested in joining the group please contact Deirdre Hennessy at deirdre.hennessy@teagasc.ie. Participating farmers will need to be measuring and recording grass growth/farm cover

Design & Print by Modern Printers: 056 7721739