



Today's Farm

Business, production, environment and countryside issues www.teagasc.ie



Salad days in Cork

Getting a start in dairying	8
Succession Farm Partnerships	10
Dairy workload...reducing the spring peak	14
Getting the most from your discussion group	16
What's your sheep breeding plan?	18
Contract finishing, UK style	20
Safety, efficiency and work-life balance	22
– this Donegal farmer has his priorities right	24
Precision lime making a difference	28
Limerick organic beef group	30
Equine and dairying complement each other	32
Farm safety code of practice	34
RBAPS: The Results-Based Agri-Environment Pilot Scheme	36
RDS Forestry Awards – recognising excellence in forestry	38
Building a state-of-the-art turfgrass training academy	
and more...	

Farming. It's in our roots.
Protection. It's in our nature.

Farm Insurance • fbd.ie • 1890 617 617



Protection. It's in our nature.

Terms, conditions and normal underwriting criteria apply. Calls may be recorded for training and verification purposes.
FBD Insurance plc is regulated by the Central Bank of Ireland.



FBD
INSURANCE

Events

- 4 Events during September and October

Etc

- 7 We'd like your views
Farm business strategy course

Careers

- 8 Getting a foot on the ladder

Farm management

- 10 Succession Farm Partnerships

Dairy

- 14 Workload – reducing the spring peak
16 Getting the most from your discussion group

Sheep

- 18 What's your breeding plan?

Beef

- 20 Contract finishing, UK style
22 Safety, efficiency and work-life balance in Donegal

Tillage

- 24 Precision lime making a difference

Organic farming

- 26 Organic salads from Cork
28 Limerick Organic Beef Discussion Group

Equine

- 30 Equine and dairying complement each other in Galway

Health and safety

- 32 Farm safety code of practice

Environment

- 34 RBAPS: The Results-Based Agri-environment Pilot Scheme

Forestry

- 36 RDS Forestry Awards – recognising excellence

Botanic Gardens

- 38 Building a state-of-the-art turfgrass training academy

COMMENT



Mark Moore
Editor,
Today's Farm

Grass is our theme at the National Ploughing Championships

Grass, the country's most important crop, is one of our key themes at the Teagasc stand at the 2017 National Ploughing Championships near Tullamore. Like last year, we will have a large demonstration area where mini-paddocks will exhibit key aspects of grassland management.

Teagasc researchers, specialists and advisors will discuss how to grow and utilise what is the best value feed available. In our marquee we will have the usual full range of enterprises represented plus education, Smart Agriculture, etc.

In the marquee there will also be the opportunity, subject to capacity, to sample milk from grass versus milk from a total mixed ration – many people prefer grass derived dairy products. Let's see what you think.

Tá an Comórtas Treabhdóireachta beagnach linn...

Tá an féar, an barr is tábhachtaí sa tír, ar na príomhthéamaí ag seastán Teagasc ag an gComórtas Náisiúnta Treabhdóireachta 2017 in aice le Tulach Mhór. Ar aon dul leis an mbliain seo caite, beidh limistéar mór taispeántais againn ina léireofar príomhghnéithe de bhainistíocht féaraigh le banracha beaga. Pléifidh taighdeoirí, speisialtóirí agus comhairleoirí Teagasc an bealach leis an gcothú is fearr luach atá ar fáil a fhás agus leas a bhaint as. Beidh réimse iomlán na bhfiontar curtha i láthair againn inár n-ollphuball in éineacht le hoideachas, talmhaíocht chliste srl. Beidh deis san ollphuball, fad is go bhfuil an toilleadh ann, bainne ó fhéar a shampláil i gcomparáid le bainne ó chuid Iomlán Mheasctha...is fearr le cuid mhór daoine táirgí déiríochta a bhaineann le féar. Féachaimis céard a cheapann sibh!

TILLAGE

Precision lime making a difference

>> 24-25



Martin Ennis and Eilish Burke.

Today's farm is a bi-monthly publication produced in a joint venture between Teagasc and the Agricultural Trust, publishers of the *Irish Farmers Journal* and *The Irish Field*.

Editor: Mark Moore | Editorial team: Alison Maloney, Joanne Carroll and Eric Donald
Group production editor: Garrett Allen

Sub-editors: Regina Horan and Brian Murphy

Cover design: Design at DBA

Imaging: Carol Dunne, Ferdia Mooney and Alice O'Sullivan

Printing: Boylan Print Group, Drogheda, Co Louth

All editorial enquiries to: Teagasc, Oak Park, Carlow

Tel: (059) 9170200 Fax: (059) 9183498

e-mail: mark.moore@teagasc.ie | web: www.teagasc.ie

The publishers do not accept responsibility for any private and trade advertisements or advertising insertions included in this publication. Occasional reference in this magazine to trade names and proprietary products may be inevitable. No endorsement of named products is intended, nor is any criticism implied of similar products which are not mentioned.

Cover | Sheila and Rory Magorrian with sons Sean and Dylan and Kildinan farm salad leaves.

FORESTRY EVENTS 2017

Talking timber: conifer marketing event

- Tuesday 5 September 2017.
- Horse & Jockey Hotel, Co Tipperary.
- Registration: 9.30am.
- Contact: Michael Somers on 087-121 6163 for details.

National Ploughing Championships

- 19 to 21 September.
- Screggan, Tullamore, Co Offaly.
- Visit the Teagasc stand.

Talking hardwoods

- Tuesday 24 October.
- Firgrove Hotel, Mitchelstown, Co Cork.
- Contact: John Casey 087-224 2283 for details.

Forestry one-to-one clinics

- 9 to 13 October.
- Check www.teagasc.ie/forestry for details of all dates and locations.
- For details on all forestry events, check www.teagasc.ie/forestry

TEAGASC BETTER FARM
TILLAGE FIELD WALKS

The focus of each of the Teagasc BETTER farm tillage field walks listed in Table 1 (bottom of page) will be on precision farming and current agronomy issues in winter crops.

The main topics on the day are:

- Total soil analysis.
- Soil nutrition: Feeding the soil to feed the crops.
- Using field/crop information to make better decisions.
- How to use precision equipment to improve crop performance.

TEAGASC TILLAGE
CROPS FORUM

- 7 September 2017.
- **Time:** 2pm to 5.30pm.
- **Venue:** Keadeen Hotel, Newbridge, Co Kildare.

SHARE-FARMING OPEN DAY

- 6 September 2017.
- **Event time:** 11am.
- **Venue:** Shinagh Estates Farm, Gurteen, Bandon, Co Cork.

Topics covered at the event will include:

- Farm owner and share farmer perspectives on share-farming.
- Positioning yourself for share-farming.



- Total development costs for setting up a new 100-cow farm.
- The Gurteen share-farming agreement.
- Physical and financial performance to date, including returns to both parties.
- Other collaborative farming arrangements
- **Farm location:** 51°45'33.7"N 8°46'59.8"W

The farm will be signposted from all routes into Bandon.

See article on pages 8 and 9.

TEAGASC KILDALTON COLLEGE
SUCKLER & BEEF EVENT

- 6 September 2017.
- **Event time:** 6pm.
- **Venue:** Kildalton College, Piltown, Co Kilkenny (Eircode: E32 YW08).
- The focus for beef and suckler

farmers attending will be on autumn management of the Kildalton herd including weaning, grassland management and finishing cattle off grass. The walk will also examine the physical and financial performance of the Kildalton herd including the various beef finishing systems in the college. This is a DAFM-approved Knowledge Transfer beef national event.

BETTER FARM HILL SHEEP WALK

- 6 September 2017
- **Venue:** Patrick Dunne's farm, Rathdrum, Co Wicklow.

TEAGASC GREEN ACRES CALF
TO BEEF WALK

- Wednesday 4 October 2017.
- **Venue:** Michael Ryan's farm, Co Westmeath.

Table 1: Teagasc BETTER farm tillage field walks

Date	Venue	Time
Tuesday 12 September	John Collins, Cappoquin Estate, Cappoquin, Co Waterford	2pm
Wednesday 13 September	Kevin Nolan, Grangeford, Co Carlow	2pm
Thursday 14 September	Derek Keeling, Oldtown, Co Dublin	2pm

Visit the Teagasc stand at the National Ploughing Championships on 19, 20 and 21 September.



COLLEGE OPEN DAYS

•Thursday 5 October 2017

•College open day, Gurteen Agricultural College, Ballingarry, Roscrea, Co Tipperary, E53 TP93. Time: 10am.
•College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin 9, D09 VY63. Time: 10am

•Friday 6 October 2017

•Ballyhaise Agricultural College, Ballyhaise, Co Cavan, H12 E392. Time: call to confirm.
•Kildalton Agricultural & Horticultural College, Piltown, Co Kilkenny. E32 YW08. Time: call to confirm.

FARM SUSTAINABILITY OPEN DAY

•Friday 13 October 2017.
•Venue: Kildalton Agricultural College. Time: call to confirm.

TEAGASC NATIONAL BEEF CONFERENCE

•Tuesday, 17 October 2017.
•Venue: Tullamore Court Hotel. Time to be confirmed.

TEAGASC AT THE NATIONAL PLOUGHING CHAMPIONSHIPS.

Consider yourself invited to the Teagasc stand on 19, 20 and 21 September.

The full breadth of Teagasc activities will be represented with colleagues present to talk to you about beef, dairy, sheep, tillage and pigs. If you would like to discuss education there'll be experts from our Teagasc colleges to outline the wide range of options. If you're interested in drones, come and talk to our specialists in Smart Agriculture.

Our overall theme this year is "working for farmers", which reflects

everything Teagasc does, but a secondary theme is that of grass. We will again have an outdoor grass demonstration area. This proved hugely popular last year and is increasingly relevant with the launch of the Grass10 initiative, which Teagasc is pursuing with a range of partners.

This year, our food research colleagues will also be present so there will be something for everyone... don't hesitate to drop in.

Share Farming Open Day

Wednesday, 6th September | 11.00 am

Shinagh Estates, Gurteen Dairy Farm, Bandon, Co Cork



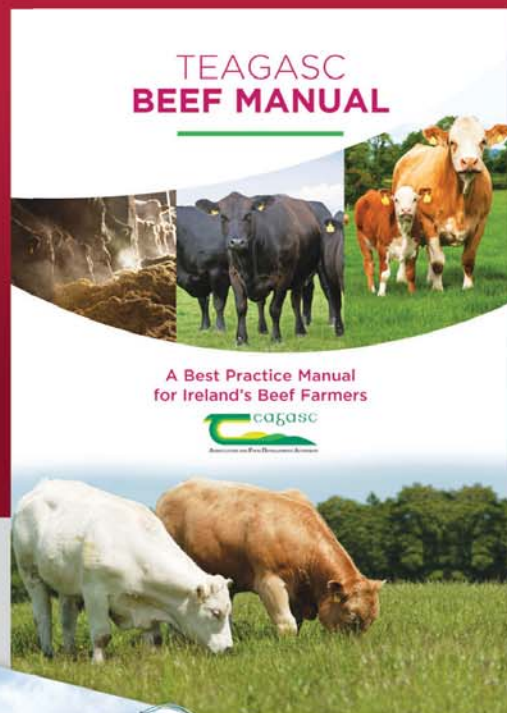
TEAGASC BEEF MANUAL

A comprehensive source of practical advice for any beef business.

- Beef Farming
- Farm Business Management
- Beef Systems
- Breeding
- Soils & Environment
- Nutrition
- Animal Health
- Infrastructure

These sections are further divided into a total of 52 chapters with titles such as: Taxation, Making Money from Bought In Cattle, Winter Facilities, Feeding the beef Cow, Managing Your Grass, Replacement Heifer Management etc.

The information within each chapter is built on feedback from farmers and is laid out as Questions and Answers, How-to's, Key Performance Indicators, Key risks, etc. making the Manual extremely easy to read and use. The Manual will be of particular interest to anyone planning to expand over coming years.



**REVISED AND
UPDATED**

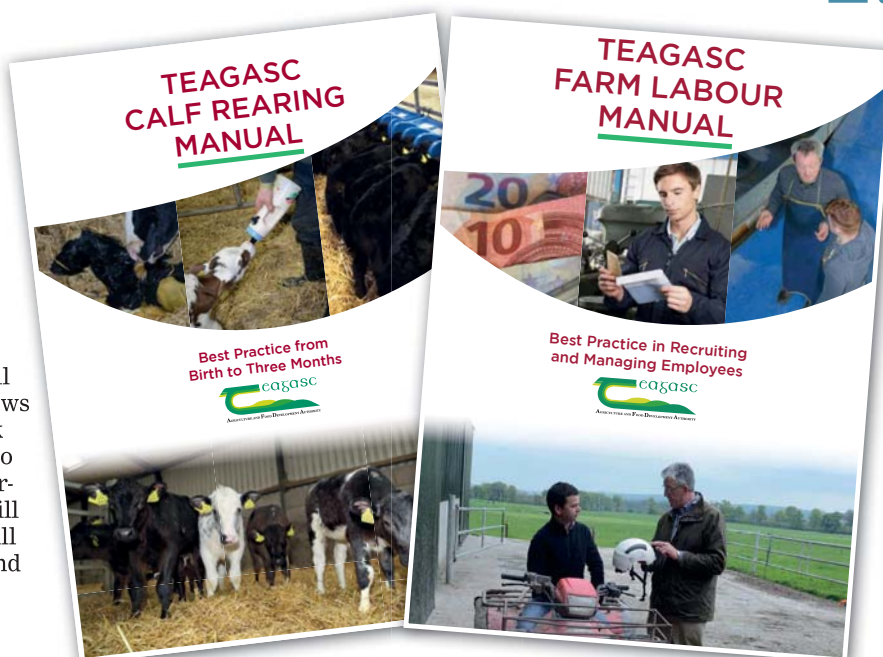
A must for anyone with an interest in beef farming the 310-page Manual is produced using tear-proof, water-proof paper for real world conditions.

**The Teagasc Beef Manual is available at Teagasc offices for €50.
For a limited time Teagasc clients can purchase copies for €25.**

Alternatively, contact Therese Dempsey on (059 9183422) who will send you a copy by post (p&p €7.50 extra)

We value your opinion

If you follow the link below you will arrive at our survey of readers' views about *Today's Farm*. It's very quick and easy to complete and you can do it anonymously if you choose. Alternatively, add your details and we will enter you in a draw. Six winners will receive a Teagasc labour manual and a Teagasc calf-rearing manual.



<https://www.surveymonkey.com/r/NRQZWQB>

Invest in yourself with the Teagasc/UCD Michael Smurfit Business School course in business strategy

This course, accredited at Level 8 by UCD, will run again this autumn and represents an opportunity to take a step back from the day-to-day running of your business and develop your own unique strategy for the next three to five years. The course has already received strong interest but there are some places left.

The aim is to provide participants with the skills to create and implement a strategy specifically for their family business. Topics covered include strategy formulation, leadership, dealing with conflict, understanding ourselves as managers and investment appraisal.

The course is residential (at the Lyrath Hotel, Kilkenny). Module one covers three days (26, 27 and 28 September), module two 1 and 2 November, and the final day required is 22 November.

As well as attendance on these days, pre-reading and work on your own strategy is required. Participants also receive support in small groups from Teagasc mentors.

Jason McGrath from Cappagh, Co Waterford (the family operates two very large birth-to-finish pig units), is one of the 85 farmers, in four cohorts, who have completed the course. "It was really good at making you think 'outside the box'," he says. "You learn a lot from the other participants (who come from all types of farm business) as well as from the course itself."

"I found the parts which dealt with



Jason McGrath, second row, third from the left, with the first group to complete the course.

staff motivation and management style particularly useful. It was good to have the opportunity to do the course. Since doing the course you'd relate to it even more."

Other graduates of the course include John Sexton, featured on pages 8 and 9 of this edition and dairy farmer Peter Fleming, from Timoleague, recently appointed as chairman of Carbery Group. "Both myself and Dermot O'Leary, the previous chairman, took part in the course and we found it not only useful but also very enjoyable," says Peter. "I would genuinely recommend it to any

farmer thinking about the future of their business."

There are no specific academic entry requirements, though you need at least five years' management experience. The course fee is €2,200 (€2,000 for Teagasc clients) and this includes food, overnight costs, etc. Graduates receive an accredited certificate from UCD at a graduation ceremony in Belfield. If you would like to know more or register your interest, please contact Mark Moore on 087-417 9131 or email mark.moore@teagasc.ie. Alternatively, contact Therese Dempsey on 087-953 0759.

Getting a start in dairying

Collaborative farming options such as partnership and share-farming offer the kind of opportunities a generation of educated, experienced and highly motivated young people have been waiting for

Paidi Kelly

Teagasc Animal and Grassland Research and Innovation Programme, Moorepark

John McNamara

Teagasc advisor, Clonakilty

John Sexton is 18 months into one of Ireland's newest share-farming arrangements on the 34ha, Gurteen, farm near Bandon which is owned by Shinagh Estates Ltd – a company owned by the West Cork Co-ops. Shinagh Estates Limited is managed by Gus O'Brien. In 2015, Shinagh Estates invested €250,000 to convert what was then an out-farm into a 100-cow dairy unit.

"The aim was to demonstrate how a share-farming model could provide a good income for the farm's owners but also enable a person with some capital to start a dairy farming business," says John.

"The farm shouldn't be confused with either the agricultural college in Tipperary or the nearby Shinagh Dairy Farm which was set up by Shinagh Estates and Teagasc in 2011 to show how leasing land can facilitate profitable expansion."

The Shinagh Dairy Farm is a great success but it required very substantial startup capital and other models, like the one at Gurteen, are needed to help people make a start in dairying.

Opportunity

After a lengthy selection process, which took into account his educa-

tion, energy, enthusiasm and experience, John Sexton was selected. Share-farming arrangements can last any period of time but typically contracts are signed for a minimum of three years.

In this case, the contract is seven years' long, which was the timeframe John required to secure the debt on his 93 cows. "In theory, I could move on before the end of the agreement in which case I must give at least six months' notice," says John.

John's homeplace is a fragmented 28ha farm in Donoughmore, Co Cork, where he has 36 heifer calves from 2017 and 30 in-calf heifers born in spring 2016. This amounts to €52,000 worth of young stock (depending on market values) to go with the equity he has in the herd at Gurteen.

"The aim is to build equity and potentially move to another opportunity at the end of the current agreement," says John. His departure would generate an opportunity for someone else.

Share-farming

The principle of share-farming is that the land owner provides the land and infrastructure (milking parlour, wintering facilities, roadways, etc) for dairying and the share farmer will provide some or all of the livestock, all the labour and management of the farm. Machinery can be provided by either party.

Each party gets a percentage of the



OPEN DAY

There will be an open day on the farm on 6 September at 11am where all aspects of the share-farming arrangement, farm development and farm performance will be discussed in detail.

milk cheque. In this case, the split is 60/40 to John. Stock sales are his, as he owns the cows, and all of the Basic Payment goes to Shinagh

Estates.

Shinagh Estates cover costs relating to their assets, e.g. roadway repairs, while John covers costs relating to his assets, e.g. animal health costs. Costs associated with producing milk from the farm, e.g. feed and fertiliser costs, are split in the same ratio as the milk cheque.

All of these splits are described in the legally binding share-farming agreement; templates which are available on the Teagasc website.

Teagasc developed this template specifically for dairy share-farming in Ireland. "It is vital that both parties complete a business plan and seek the advice of a Teagasc advisor, solicitor and tax accountant during the formation of the arrangement," says Tom Curran of Teagasc.

Splitting expenses

In some share-farming arrangements income and costs are split at source, e.g. for milk sales the milk processor will issue a milk statement to both the share farmer and farm owner with their percentage of the milk for



Key messages

- A new 100-cow share-farming arrangement has been set up by Teagasc and Shinagh Estates in Bandon, Co Cork.
- John Sexton is the share farmer and after years of being an employee on a dairy farm, he now owns his own cows.
- A good working relationship is fundamental to a successful share-farming arrangement.



John Sexton pictured with his Teagasc advisor Grainne Hurley.

that month. The financial expenses are monitored using a specially modified version of the Teagasc cost control planner programme. For inputs, the supplier may invoice each party for their share, e.g. if ordering six tonnes of fertiliser, three tonnes will be invoiced to each party.

Alternatively, income and expenses can be split at farm level, e.g. where the milk cheque is paid to the farm owner and they then pass this on to the share farmer recording the transaction with a short invoice and receipt. Or the fertiliser is charged to one account and at the end of the month, the farm owner and share farmer meet up to keep accounts up to date. This is how the Gurteen share-farming is operated with Shinagh Estates being the initial point of contact for suppliers.

Relationship

"On top of the legal agreement between the two parties, there are other principles of how share-farming works which need to be adhered to for a good working relationship," says John McNamara of Teagasc in Clonakilty:

- Respect from John to look after the farm as if it were his own.
- Respect from Shinagh Estates to give John freedom to manage the farm, within reason, once certain key per-

John's career path to date

- Level 6 certificate in dairy herd management, Clonakilty (two years)
- Farm assistant with William Kingston, Skibbereen – 220 cows (six months).
- Farm assistant with Alastair and Sharon Rayne, New Zealand – 700 cows (one year).
- Herd manager for Grasslands, New Zealand – 800 cows (one year).
- Farm manager for Ed Dale, England – 450 cows (three years).
"I always chose to work for excellent farmers and in different countries to improve my farming and business skills," says John.

formance indicators are met.

To ensure a good working relationship it is advisable to have a third party, e.g. a consultant/advisor as an independent party who will monitor how the farm is performing relative to targets and how well both parties are meeting their obligations. In this case, John McNamara fulfils the role

and he facilitates a monthly meeting with both parties to review performance.

Performance to date

"2016 was a difficult year for established farmers never mind a new start up," says John's local Teagasc advisor Grainne Hurley.

John had put a herd together at the end of 2015 which comprised 50% first lactation heifers – average age of the herd last year was 1.9 lactations. Last year, 342kgMS/cow was sold after feeding 460kg of meal per cow.

This year John is hoping to sell 380kgMS/cow and has only fed 200kg of meal per cow to date.

A total of 11% of the herd was empty after 12 weeks' breeding last year so only 10 first-lactation heifers were bought in this year. Cash was tight last year with the poor milk price and John went to interest-only repayments.

"The lift in milk price means the outlook is much better this year," says John. "I'm hoping to achieve a return on investment of 10% in 2017." As the herd matures, performance will continue to improve as will John's return on investment and net worth. "After a difficult start, I'm confident of making significant progress over the next few years on the Gurteen farm," he concludes.

Planning for succession

Succession Farm Partnerships are a welcome new option for farm families

Tom Curran
Farm Structures Specialist,
Teagasc Rural Economy Development
Programme

When people think of succession, they often associate it with the legal transfer of the farm. While farm transfer may be the end game, it is not what succession is about. Succession is the gradual transfer of management and decision making on a farm and at the beginning it tends to be task orientated.

When a son or daughter becomes involved in the day-to-day work on the farm; they learn new skills and in time become proficient or even expert in those skills. The required knowledge and many of the necessary skills are self-learned or passed down from the parents to the son or daughter.

Succession can be pictured as a ladder and it is important to be aware that every farm family is somewhere on this ladder, be it at the beginning with a young family or at the end on the point of farm transfer. Figure 1 outlines the various situations where farm families may find themselves on the succession ladder.

Step one is where a farming successor has not yet been identified. This may be due to the fact that there is no farming successor or simply that the family are too young to identify a successor.

It may also be due to the fact that there are no children in the family or there are children who have no inter-

est in developing a career as a farmer.

In situations where no farming successor has been, or can be, identified, the term succession should be broadened out to include other possibilities. The succession plan may involve other options such as a partnership with: a relative (e.g. niece, nephew, etc); a young trained farmer or other alternative options such as contract heifer rearing, forestry, land leasing or the planned sale of the farm.

All of these options can be weighed up in the context of what the current farmer would like to do in the future. (i.e. remain farming in some capacity; step away completely; or avail of financial incentives).

Step two is where a farming successor has been identified but no plan is in place. There may have been little or no discussion about succession or the future. The identified successor or indeed his/her siblings may not be aware that a successor has been chosen. This is where the development of

farm management

Succession Farm Partnerships – a key new incentive

Succession Farm Partnerships involve a new income tax incentive that is available to farmers from 2017 onwards based on the successful registration of a succession farm partnership with the Department of Agriculture, Food and the Marine. Under the scheme, an annual income tax credit of €5,000 is available to the partners in the partnership for up to five years after making a successful registration.

The aim of the incentive is to encourage the transfer of farm assets to the next generation in a planned way while also providing a level of protection for the transferors by allowing them to retain 20% of farm assets.

The four key requirements of a Succession Farm Partnership are:

- At least one partner must be a person who has farmed at least three hectares for two years prior to the formation of the Succession Farm Partnership. This person is defined as the “Farmer”.
- At least one other partner must be a person who: has completed the required level of agricultural education; is under 40 years of age in each year that the income tax credit is claimed and is in receipt of at least 20% of the partnership profits. This person is defined as the “Successor”.
- The Teagasc *My Farm My Plan* booklet must be completed and certified as satisfactorily completed by Teagasc. A copy of this certificate is required for registration purposes.
- The farmer and the successor must enter into a legally binding succession agreement where the farmer agrees to transfer to the successor (within three to 10 years of registering the Succession Farm Partnership) at least 80% of the farm assets owned by him/her in the partnership and at least 80% of the farmer's share of livestock and machinery owned by the partnership.

A date must be fixed for the transfer of farm assets as part of this agreement. The specific area of land to be transferred has to be clearly identified on a map.

Updating/making a will

It is vital that any previous will made is updated in line with the succession agreement to ensure that the documents are consistent with each other. In situations where no previous will exists, it is imperative to ensure that a will is put in place which is consistent with the terms of the succession agreement.



At least one partner must be a person who has farmed at least three hectares for two years prior to the formation of the Succession Farm Partnership.

Taking advice

As part of the process of completing the succession agreement, it is vital to seek the advice of your Teagasc advisor; solicitor; accountant and also any banking institution that may have a charge/security interest in lands that are intended for transfer.

Moving from an existing registered farm partnership

Partnerships in existence and registered with the DAFM partnership registration Office may opt to register as a Succession Farm Partnership.

What happens after the transfer of assets has taken place?

“ A clawback of the amount of tax credits claimed will apply where the farm assets do not transfer as specified in the succession agreement

There are two possible options available after the transfer of assets has taken place as specified in the succession agreement. They are: the partnership could continue for a further period of time involving the same partners or the partnership could end after the transfer of assets has taken place. Where the partnership has ended, the successor can farm in his/her own right using the assets transferred. Where the partnership is continuing, the partnership agreement and supporting documentation

must be updated to reflect the change in ownership of assets or capital in the partnership.

Limited companies

Farmers who are farming through a limited company are not eligible to form a Succession Farm Partnership. Both the farmer and successor must be what is known as “natural persons” (i.e. not a limited company).

Registration procedure

The Succession Farm Partnership must apply for entry on to the Succession Farm Partnership register by completing the appropriate application form and be accompanied by the following documents:

- A farm partnership agreement and on-farm agreement.
- Evidence of land ownership (folios) or possession (lease).
- Evidence of appropriate agricultural education level completed.
- Teagasc certificate for the *My Farm My Plan* booklet.
- Legally binding succession agreement.
- Birth certificates as evidence that the “successor” is under 40 years of age at time of application.

Clawback

A clawback of the amount of tax credits claimed will apply where the farm assets do not transfer as specified in the succession agreement (a clawback of €25,000 will apply where the full tax credit has been previously claimed). The succession agreement must also be legally binding to afford a level of protection to the successor.

NEW

TEAGASC FARM LABOUR MANUAL



Best Practice in Recruiting
and Managing Employees



AVAILABLE AT TEAGASC OFFICES

Price: €25

Workload – reduce

Pat Clarke

Dairy Specialist, Teagasc Animal and Grassland Research & Innovation Programme

Researchers at Teagasc Moorepark recently completed a detailed study of the time that leading commercial dairy units spend on individual jobs. All tasks were measured, whether completed by the farmer, family, employees or contractor. “Work organisation and work prioritisation is the key to flattening workload peaks,” says Justine Demming, who conducted the study, and presented the findings at the Teagasc Moorepark open day on 4 July.

Only farms regarded as being already relatively labour-efficient were included. Spring accounted for 34% of their annual workload. This may seem low, but these farms had practices and systems in place to minimise and spread the peak workload.

Work organisation

Preparation and organisation in the months leading up to calving is key to reducing the spring peak.

One farmer said: “We have a busy December and January, so February is not so bad. If you are fully set up, you can deal with lots of cows calving in February.”

A weekly plan created for December and January will ensure that, where possible, work is completed well in advance of calving. The plan (Table 1) helps avoid work drifting into February or March.

Labour efficiency

In the study, herds of 200 cows required 28 hours of total work per cow. However, the range in this herd size category was from 18 hours/cow for the most efficient farms to 39 hours for the least efficient. This equates to 3,600 hours of work for the most efficient, and 7,800 for the least. Why is there such a difference? Some of the

approaches used by labour efficient farms include:

•**Machinery work:** This accounts for 20% of the work on farm. The most efficient farms contract out a high proportion. Also, there is less total machinery time on the most efficient farms, indicating that contractors are often better equipped and able to achieve greater efficiency than individual farms.

•**Milking time:** The most efficient herds have fewer rows to milk and therefore spend less time in the parlour. They also have more automation around milking, such as backing gates and drafting.

•**Milking OAD in early lactation:** Some herds milk cows just once daily for the six weeks after calving, reducing workload. This can save between one and two hours a day depending on parlour size. It will reduce milk production during this period and over the subsequent lactation – some trials show a 6% reduction in milk volume over the full lactation.

•**Cow condition at calving:** Cows calving in the correct body condition don't create the same work as fat or thin cows. Efficient farms put time into dry-off and feed groups to achieve a calving score of 3.25 units. They select sires with low calving difficulty. A calving jack should not be required on more than 1% to 2% of the herd.

•**Night feeding of silage:** Feeding cows late in the evening reduces the percentage of night-time calvings. Trials have shown that restricting silage feeding time resulted in 9% fewer night calvings (from 12.30am to 6.30am) compared with cows with full access to silage. Fifteen percent of cows still calved by night and 85% by day when silage feeding time was restricted and 24% calved by night and 76% by day when cows had continuous access to silage.

Labour-saving methods of calf rearing will be dealt with in later editions of the magazine.



Table 1: Labour-saving ideas

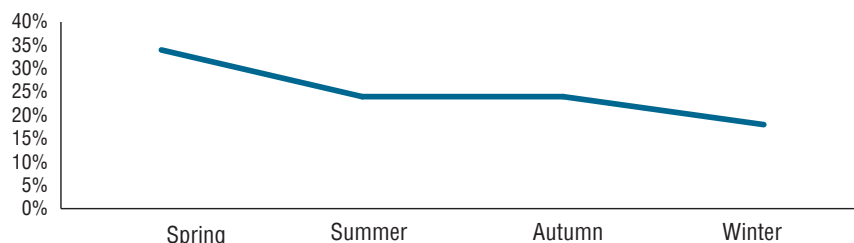
Idea	Labour saved per week	Time of saving	Saving/ annum	Initial cost and annual cost	Cost per hour reduced	Other benefits
New milking parlour	Eight less rows per day, 80 less mins per day, 9hrs per week	Feb to Nov	400 hours	€130,000 €10,000	€25	Safer farm. Tasks done on time. Easier to use relief milkers
OAD feeding calves	60 calves, 20 seconds per calf per day, seven weeks	Mar to May	16 hour	None None	None	Safer farm. Tasks done on time.
Three grazings per paddock	No wire set up each milking, 20 mins per day, For 150 days	April to Aug	50 hours	€3,000 €150	€3	Better cow performance. Better BCS in first lactation animals

the spring peak



Good planning and communication with staff are key to reducing work peaks.

Figure 1
Seasonal workload



Example of a plan for December and January

Wk	December	January
1	<p>Correct cow body condition (batch) Dry off all cows Farmyard flow – do cows need to be rerouted to the parlour Parlour access and exit – improve it</p> <p>Clean out calving area Decide what help is needed next spring Print ICBF expected calving list Dry cow mineral programme List other jobs</p>	<p>Complete profit monitor Order spring fertiliser Complete roster for spring workload</p> <p>New student/employee – should start in Jan to allow them to become familiar with the farm etc. List other jobs</p>
2	<p>Repair farm roadways Add spur roads for early access</p> <p>Get a fridge and freezer for calf shed Check ventilation in calf shed – change. Measure calf shed – how many calves Extra calf accommodation – hutches Increase calving area Adjust doors for easy cleanout List other jobs</p>	<p>Purchase equipment for calving Complete paperwork with account/solicitor etc Train heifers to parlour Repair fences Increase paddock entrances List other jobs</p>
3	<p>Book contractor for slurry and fertiliser in February Check cow and calf flow in the yard at calving – make changes Gates to make cow route secure</p> <p>Slippy floors – get them grooved List other jobs</p>	<p>Take a break for a few days Batch cows for calving</p> <p>Remove machinery/straw from spare sheds Place bedding where it is required Supplies conveniently located to minimise walking List other jobs</p>
4	<p>Make a list of equipment and materials needed for calving List other jobs</p>	<p>Measure grass cover</p> <p>Make decision where to graze first Have reels/post in the paddocks set up Erect temporary shelter for calf turnout List other jobs</p>

Evaluating labour-saving techniques

Farmers and farms don't become labour-efficient by chance. They examine each potential labour saving

technique and consider how it could eliminate work on the farm.

They talk to people who have used the techniques and plan how to deal with the cost associated with this change, if there is a cost.

Other benefits

They are willing to pay more to eliminate work during the peak season.

Other benefits also need to be considered, such as improving overall herd performance or making farms better places to work.

The following template could be used to look at potential labour-saving ideas.

Also, take a look at the labour-saving wall from the Teagasc Moorepark open day at www.teagasc.ie

dairying

Getting the most from your discussion group

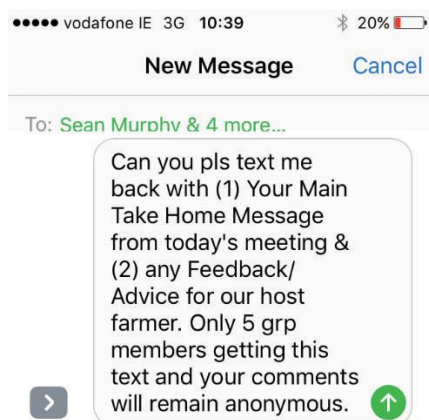
Jim Moyles

Teagasc dairy advisor, Tullamore

What key messages did you take home from your most recent discussion group meeting? What feedback did the host farmer get? These questions are a healthcheck for your group.

Feedback from fellow group members is something discussion group host farmers value most. At all well-established, high-performing groups there is open, honest, debate around how the host farmer is performing, e.g. the condition of his/her cows, the quality of grass on the farm, adequacy of farmyard facilities and labour input.

In Co Offaly, we have an added twist to how discussion group members formulate and convey their take-home messages and how the host farmer gets feedback from his/her peers. It simply involves group members texting the group facilitator with their key message(s)/host feedback on the evening after the discussion group meeting.



On the evening of the meeting a single group text is sent to five members, chosen at random, seeking their comments on the group meeting they attended earlier that day.

How does it work?

On the evening of the meeting a single group text is sent to five members, chosen at random, seeking their comments on the group meeting they attended earlier that day.

Members of each of the five dairy discussion groups across Offaly have embraced this method of giving their views on that day's meeting. Typically, all five responses would be received by lunchtime the following day. These feedback texts are then simply copied and pasted into a feedback sheet that is emailed to the entire group.

The names of the group members providing the feedback are not included. Only the group facilitator knows who has given what feedback.

What advantages does this system of feedback offer?

- Members have time to reflect on what they saw during the entire course of the group meeting, rather than being "put on the spot" to give feedback at the end of meeting.
- It helps reinforce the messages from the meeting for all group members.
- The system helps to avoid group members repeating another farmer's response when asked to provide feedback for host at the end of a meeting.
- Members can be more honest with their feedback. In a group setting they may hold back, concerned that they may offend the host farmer or another member.
- Due to the anonymity of the feedback, host farmers place more value on it as they know that the person giving the feedback is free to be entirely honest.
- Farmers, in my opinion, are more likely to act on feedback from their peers than if the advice comes solely from their advisor.
- The feedback sheet can be very useful for the next monthly group meeting to get comments from the host on the feedback they received and enquire if there were any follow-up actions taken based on it.



- It is a good record for when you return to the same farm for subsequent group or advisory visits.
- You can ensure you get full group participation, by keeping a record of who you send feedback request texts to, rather than more vocal members giving all the feedback.
- Group facilitator/advisor can establish if he/she was successful in getting his/her message across and, more importantly, take a different approach to the topic the next time if necessary.

“ The names of the group members providing the feedback are not included. Only the group facilitator knows who has given what feedback

Timing is everything

The text which goes out to the five group members should be timed to maximise the response rate. What works for me, is sometime between 8pm and 9.30pm on the night of the meeting. You want to try to ensure that the text recipients are likely to be finished their day's work but you don't want to be texting people too



Members of each of the five dairy discussion groups across Offaly have embraced the text method to give their views on that day's meeting.

late. It's a balance; you need to give group members time to digest what they saw on the day, while ensuring the meeting and group discussion is still fresh in their minds.

My target is to have this sheet returned to the group including the host, by lunchtime the day after the meeting. As some of the feedback may relate to time-critical actions such as grassland management, cow supplementation, etc, it is essential that there is minimum delay.

Adding extra vibrancy to your group

The longer a discussion group is together, the greater the risk that things can become stale. Working closely with different group chairs and group-steering committees, I find that we are constantly looking for new ideas to freshen things up and add extra vibrancy into our groups.

This is done with the end goal of ensuring that not only are members learning every day they attend a meeting, but just as importantly they continue to get enjoyment from meetings. Maybe this feedback process has something to offer on both these fronts. There is no massive extra workload in it for anyone, just a small bit of discipline in making the time to answer a text message. Why not trial it for your next group meeting? You have nothing to lose.

DISCUSSION GROUP MEMBERS HAVE THEIR SAY

Aidan Kenny, (West Offaly DG)

"Meetings can be very busy, some days with lots to discuss and limited time. More often than not, it's when you get home and have time to reflect on what you saw that you come up with ideas, solutions and comments for the host farmer. This is where the feedback system comes into its own."

Brendan McAuliffe (South Offaly DG)

"It can be easier to tell a fella something you know he doesn't want to hear, when you know you don't have to put your name beside it."

Thomas Muldoon (North Offaly Graziers DG)

"For farmers giving feedback that night through the text system, they can elaborate on points that were brought up on the day and also give the reasoning behind their feedback, which is something I particularly like. I feel that the take-home messages are good, no matter how big or small, as it helps lads to implement changes on their own farms."

Paddy Whyte (South Offaly DG)

"I hosted a meeting last summer; I got feedback saying that there looked to be a lot of children on the farm and to be aware of safety. I took this on board and have since restricted access from my house to the farmyard and am far more conscious of child safety on my farm. I appreciated this feedback as I know whoever gave it, had the safety of my family at heart."

MILK MORE COWS IN LESS TIME WITH LESS LABOUR...



GRANT AIDED

DAIRYMASTER

Experience the difference...

- Each cow is uniquely identified and treated as an individual.
- It's the parlour that talks to you - making you effortlessly aware of all you need to know.
- Each cow is fed to her specific requirements.
- Information at your fingertips with Swiftflo Commander.
- Cleaning made easy with our smart design.
- Reduced energy costs.
- Allows for expandability and growth.
- Exceptional speed of installation...and lots more!

VISIT US AT THE PLOUGHING

Call us on **1890-500-24-7**

Distributors Nationwide

Email: info@dairymaster.com • www.dairymaster.com

100% IRISH

Milking - Feeding - Cooling - Manure Scrapers - Health & Fertility Monitoring



What's your breeding plan?

If you operate a mid-season lambing production system, the actions you take in September and October will have a significant effect on the output from your sheep flock next year

Frank Hynes

Sheep specialist, Animal and Grassland Research & Innovation Centre, Teagasc, Mellows Campus, Athenry, Co Galway

Lambs weaned per ewe mated is key to the profitability of a sheep flock. The genetics of the ewe is one of the main factors that affect this outcome. A number of simple measures will improve the long-term productivity and profitability of your sheep enterprise.

When it comes to replacements for your ewe flock, you have two choices: breed your own, retaining lambs born on the farm, or buy replacements.

Advantages of breeding your own include maintaining a closed flock and reducing the risk of buying in

disease. You also have control over the breed of ewe that you will have for the future. You can produce prolific replacements by selecting an appropriate ram. Ram choice will have a significant effect on the flock output in the future.

A maternal ram such as Belclare, Lleyn or one of the Leicesters (Blue-faced or Border) is used to produce prolific replacements. You only need to mate a proportion of your ewes to the chosen maternal breed. The female lambs produced from these rams will go on to become highly prolific ewes.

By adopting this policy, you will have a highly prolific flock after five or six years. This will enable any farm to consistently achieve weaning rates of over 1.6 lambs per ewe mated. The male lambs will be destined for slaughter. While these

will have slightly slower growth rate than lambs born from terminal sires, farmers find that they can achieve satisfactory weights and grades when managed properly at grass.

This is backed up by results from Teagasc research and from the Teagasc BETTER farm programme. Ewes not required to produce prolific replacements can be mated to a terminal breed to produce fast-growing fat lambs for slaughter. Suitable terminal breeds include Suffolk, Texel and Charolais.

Adopting this strategy means you will be running two groups of ewes during the mating season. One group will be running with maternal rams and the other with terminal rams, to produce lambs for slaughter.

The proportion of the flock that needs to be mated to a maternal sire breed to ensure enough replacements



a replacement rate of 23% you need to keep 23 of these lambs (23/100). This allows for only a very small level of selection. If you want to have more room to select the actual ewe lambs you wish to keep, or if you wish to keep more than 23% replacements, increase the number of ewes mated to the maternal rams.

Increasing this number will also help ensure you have enough females in a year when a very high proportion of the lambs reared happen to be male lambs.

Rams required for your flock

On large-scale lowland farms there should be no problem in using one mature healthy ram for every 60 to 70 ewes, provided there are at least two to three other mature rams in the group. A well-grown ram lamb can mate 40 mature ewes without any problems. When purchasing a ram, you should opt for a pedigree ram with a high star rating under the Sheep Ireland index system.

Noirín McHugh, Teagasc, suggests the following are key reasons to go for a five-star ram:

- **Less labour at lambing:** on average, five-star rams experience less lambing difficulty relative to rams of lower star ratings.
- **More lambs:** five-star commercial ewes recorded in the Sheep Ireland system have been shown to have a higher number of lambs born.
- **Greater growth rates:** results from analysis of Sheep Ireland commercial data show that five-star lambs are on average 0.54kg heavier than one-star lambs at seven weeks of age. This resulted in five-star lambs being more than a kilo heavier at weaning relative to one-star lambs, (33.02kg for five-star lambs compared with 31.94kg for one-star lambs).

- **More efficient ewes:** commercial five-star ewes, on average, had a lighter mature weight (69kg) relative to one-star ewes (73kg). At similar levels of production, this will result in the ability to increase the number of ewes in a given flock.

- **Long-term gains:** genetic improvement is permanent and cumula-

Table 1: Minimum percentage ewes mated to maternal sire for 23% replacement rate

Flock weaning rate	% of ewes
1.1	47
1.3	40
1.5	35
1.7	31
1.9	27

tive so breeding decisions that you make today will affect future generations. For example, if you were to use animals with “good genes” then the effects of these “good” genes will remain in the flock, but remember the reverse is also true!

Selecting a ram on stars alone is not recommended. Look at the traits that the ram excels in but also keep an eye on the stars where a ram may underperform. Accuracy values must also be viewed alongside the €uro values –the higher the accuracy the greater the information that is known about the animal and the greater the confidence we have that their published index value reflects the true genetic potential of the ram.

Putting it into practice

Galway farmer John O'Shaughnessy from Turloughmore, and his son Patrick operate a mixed sheep and cattle farm. The flock consists of approximately 250 ewes, including 50 ewe lambs. The sheep flock is stocked at approximately 12 ewes per hectare.

“We mate our best 60 ewes with a Belclare ram and the female progeny are used as replacements,” says John. “To produce lambs for slaughter we use Texel and Charolais rams.

“The Belclare produces ideal replacements, highly prolific, excellent mothers with a good supply of milk for the lambs.

The farm has achieved excellent annual weaning rates of 1.7 to 1.8 consistently over the past 10 years.

This is an exceptional performance, especially when you consider that the ewe flock includes ewe lambs. John says careful management of his grassland paddocks is also key. Top-quality grass is available for lambs at all times.

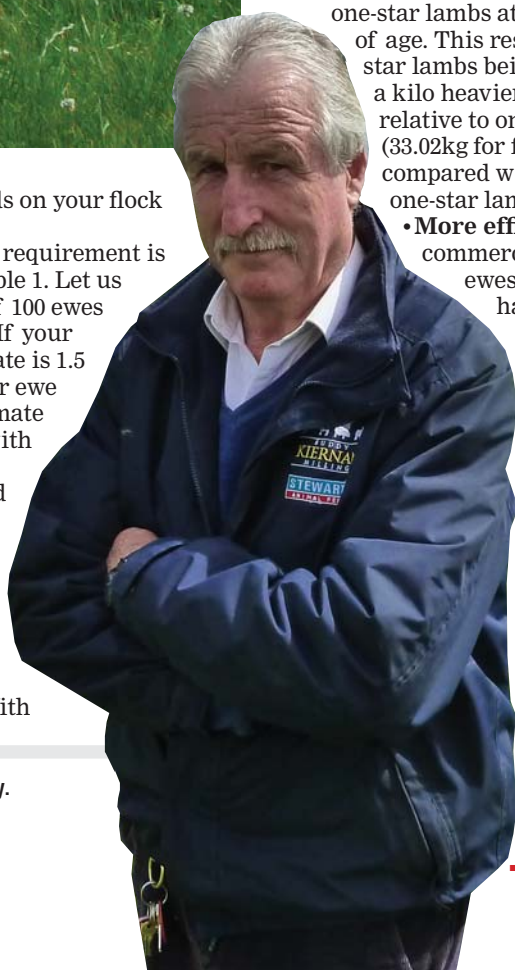
John and Patrick ensure ewe lambs have every chance of an easy lambing. “We make sure ewe lambs weigh at least 45kg, preferably 50kg, before mating,” concludes John. “We'll also use Charolais rams on ewe lambs, second and subsequent lambers will produce the replacements.

are born depends on your flock weaning rate.

The minimum requirement is presented in Table 1. Let us look at a flock of 100 ewes as an example. If your flock weaning rate is 1.5 lambs reared per ewe mated and you mate 35 of the ewes with a Belclare ram, this should yield 52 lambs (35 x 1.5).

We can assume that half of these lambs will be female so you will have 26 ewe lambs. With

John O'Shaughnessy.



Contract finishing UK style

Aidan Murray

Beef specialist, Teagasc Animal and Grassland Research & Innovation Programme.

I recently visited farms in the UK with a group of Irish dairy and beef farmers who were finalists in the Bord Bia Sustainability Awards Programme.

As a part of the prize for being finalists, Bord Bia organised a two-day trip to the north of England to let the farmers see, at first hand, beef and dairy operations in the UK.

In this article, we take a look at a beef farm we visited in north Yorkshire. Doug Dear, who farms near Selby, has introduced huge change on his 400ha farm over the last five to six years. The business has moved from a suckler system to finishing Friesian bulls and now on to contract finishing. Asked why he changed, he explains that they wanted to operate a beef system that would better complement his arable farming.

"Contract finishing suits us because we don't have to tie up huge levels of capital in stock which substantially reduces the risk to the business."

The finishing yard has capacity for 710 cattle, which are either bedded on straw or on an outdoor pad on recycled wood chip, which is cheaply available. The straw from the arable system is used as part of the diet or for bedding, and additional straw is bought in. The pay-back to the tillage system is that all the farmyard manure goes back out on the land.

Cattle are bedded daily, with all pens cleaned out once a month. In total, the farm finishes around 1,500 cattle (including heifers, steers and young bulls) each year.

Cattle intake protocol

Currently, Doug has 28 customers sending cattle into his yard, which is classed as a licenced finishing unit (LFU). This designation allows him to sell cattle directly to the factory even if they have gone out of TB test. "We're very conscious of TB and the perimeter fence of the yard is badger-proof," says Doug.

On arrival at the yard, all cattle have their backs clipped. The bellies and legs are clipped prior to slaughter. The animals are all vaccinated for IBR, PI3; they receive a fluke and worm dose and they are also treated for rumen fluke which has become an issue in recent years.

Within two or three days of arrival, they are EID tagged and their weight recorded. Weighing is routine throughout the finishing period.

The ration component of the diet is the same for all animals in the yard. It's calculated on an intake of up to 2.5% of bodyweight on a dry matter basis. When cattle first come into the yard, they are offered only 50% of their maximum intake and are gradually built up to ad lib. This avoids any potential digestive upsets.

Interestingly, no animal goes through a store period; everything is geared to a fast finish.

Finishing systems

As mentioned earlier, heifers, steers and young bulls are finished. Young bulls typically come into the yard at around seven months at circa 350kg and are generally finished at between 12 and 14 months. Any young bull which is unlikely to finish by 16 months is sold live at the mart.

Steers and heifers are obviously older on entry, at 18 to 24 months, and weigh 450kg-plus. Steers and heifers go on to a 90-day finishing regime,

which ensures that they comply with the UK Farm Assurance Scheme. Some cattle may finish after 40 days, but they will have come from a farm that is already within the scheme.

Average daily liveweight gain across all categories of stock in the yard is 1.7kg to 1.8kg/day.

The batch of Angus x Saler pictured have been averaging 1.8kg/day. Although there were a number of breeds present in the yard, there was a high proportion of Angus and Stabilisers. The Stabiliser is a composite breed made up of Red Angus, Hereford, Simmental and Gelbvieh.

All the Angus cattle go to Dovecote Park and are pre-booked 90 days prior to slaughter. They want carcasses of 320kg to 420kg, typically R3 and R4L.

Stabiliser bulls all go through a scheme with Woodheads (Morrisons) and their carcass specification is tighter, with the requirement for carcasses of 320kg to 360kg R and U 4L and between 12 and 14 months.

The performance of the Stabiliser cattle – intake, average daily gain and slaughter data – is emailed to America once a month as part of a breed improvement programme focused on feed efficiency. The results of the programme are, in turn, shared with breeders and finishers.

Costs

The yard works on the basis that the owners of the cattle are charged monthly for the stock being fed. Each customer receives a breakdown of their cattle's monthly performance.

The diet feeder records the ingredients and amount of feed given to each pen and can work out the cost/animal/day.





Doug Dear addresses the group.

The feeder will also monitor dry matter intake (DMI) and will alert Doug if there is any drop-off. It will also show when the intake of a pen has plateaued.

Feed costs are calculated on an as-fed basis per animal per day, so they will vary according to animal type and size. There is also a fixed rate charge per day to cover the costs of labour, straw, water and maintenance. This cost will vary slightly based on the numbers the customer has in the yard at any one time.

The farm grows barley and wheat, some of which is whole-cropped, and also oats, forage maize and beans. A drier handles their grain and they also buy in maize meal, distiller's liquid feed, bread and vitamins and minerals to make up the diet.

The system certainly adds value to his cereals, but Doug was quite clear that when grain is between £150 and £200/t, it pays to feed it to cattle. Once it goes over £200, he says he is better off financially to sell it.

Thoughts on Brexit

Most of the farmers we spoke to on the visit were in favour of Brexit, which many Irish farmers find hard to fathom. When asked his opinion on Brexit, Doug said he is in favour of leaving the EU. He feels that the beef price will remain as it is and the devaluing of sterling is beneficial in terms of filling the yard. He was even considering building or expanding his yard.

His preference is to have subsidy-free agriculture, as he is adamant that it will free up more land for rent or purchase, as those who are more subsidy-driven are forced out.



Angus-cross-Salers cattle averaging 1.8kg/day.

Conclusion

It was interesting to see Doug's business model in action. He has eliminated the capital invested in stock yet is adding value to his cereals. He is able to predict his income every year irrespective of the volatility of beef prices.

Doug controls what he can control and is using technology very well. He regularly weighs cattle using EID; monitors costs and feed intakes through the diet feeder. This provides good transparency and regular performance updates for his customers. Processors benefit too as he can supply animals to a consistent spec on a regular basis. Whether Brexit will have the positive impact on the business which Doug predicts, remains to be seen.

BOBMAN Bedding Machines

2%
FINANCE

JYDELAND
BOBMAN



**BOBMAN - VALUE YOUR TIME
CLEANS 150 CUBICLES
IN UNDER 5 MINUTES**

Facts

1. BOBMAN spreads - lime, all types of sawdust, chopped straw, peat bed, paper mulch and more.
2. BOBMAN brush can float up and down 8 inches to clean cubicles of different heights.
3. BOBMAN can be fitted with a sprayer system to spray disinfectant on the cubicle beds.
4. BOBMAN is the world leader in cubicle cleaning. Introduced to Denmark in 2001 BOBMAN is now sold in over 30 countries
5. BOBMAN is still manufactured in Denmark by a family owned company Jydeland A/S, don't accept lower quality imitations.
6. BOBMAN use only the best quality steel, engines (Hatz & Kubota) and hydraulic components. When you buy a BOBMAN you buy quality.
7. BOBMAN after sales - BOBMAN new or old, were here to help 24/7. With your BOBMAN you have direct access to assistance anytime.

Moreway Ltd

086 8130876 or 01 5332875

E: info@bobman.ie W: www.bobman.ie

MOREWAY LTD
Farm Machinery & Animal Health Care Equipment

Safety, efficiency and

This Donegal farmer has his priorities right

Andrew McNamee
Teagasc drystock advisor,
Letterkenny, Co Donegal

Eugene Sheridan farms with his mother Esther and wife Brenda near the sea side town of Rathmullan in Co Donegal. Together, they farm 50ha of marginal, fragmented land running 25 suckler cows in a suckler-to-weanling system with a few smarter types kept on to beef. They also have 60 Texel/Charollais cross ewes in a mid-season lambing system. Like many drystock farmers, both Eugene and Brenda have full-time jobs off the farm.

ICBF data show that the suckler herd had a calving interval of 373 days and calf/cow figure of 0.92 in 2016. This places the herd in the top 20%, based on calving interval data. "These are areas where we want to make further progress and the Herd-Plus information will help us to do that," says Eugene.

When you arrive at Eugene's yard, you notice the air of organisation and safety consciousness which pervades the place. When I mentioned this to him, he replied: "In my opinion, good work organisation is vital when a full-time off-farm job is to be juggled with running a small suckler/sheep farm."

Eugene Sheridan works with a local appliance centre as a mechanical maintenance engineer and spends a lot of time on the road. "By being organised we have the best chance that the seasonal tasks to be performed on the home farm are done in the most safe and efficient way," he says.

Eugene is an active member of a local beef discussion group and he has placed a lot of emphasis on the health and safety aspect of the Knowledge Transfer (KT) programme. All KT participants will have completed the health and safety element of the scheme to date. The reason behind that particular task is to address safety and working remotely on farm with the hope of saving lives in the future.

"Filling out that document makes you reflect on your work environment and making it a safer place for all," says Eugene.



Key areas in plan

Some of the areas that have been highlighted in Eugene's plan include:

- To add additional street lighting.
- Upgrade the lighting in some of the older sheds.

These tasks may seem very simple but they will ensure greater visibility when feeding cattle during winter months and should reduce the risk from trip hazards.

Other areas in plan

Other areas highlighted in the KT health and safety plan are:

- To make more use of contractors and work with neighbours during busy periods.
- Put a simple to-do list together each week for jobs that need to be completed.

A lot of thought has gone into other aspects of Eugene's yard. The yard is set up for a single labour unit for jobs such as dosing, herd testing, etc. The silage pit is neatly located beside the three bay slatted houses. This ensures that feeding operations are carried out safely and efficiently during the winter months.

Compact breeding

Eugene has a compact calving season because he sticks rigidly to target dates. Breeding began on 10 March this year and he removed his four-star Limousin bull on 15 June. This means calves drop from early January so as to not clash with the mid-season lambing flock. "These are all management decisions that every farmer has under his control," explains Eugene, who also says: "It's important to not overload yourself with farm work during a particular time as other aspects of life – family time and special occasions have to be prioritised too."

Grassland management/silage quality

The Sheridans don't measure grass but the grazing block is walked weekly to maintain grass quality. They have started to implement a paddock-type system for grazing cows and calves. "Some might think that this will cause extra work moving cattle two to three times a week but I'm convinced we see the benefits when we sell weanlings in the local mart," says Eugene.

"Another area we focus on is silage

a work-life balance



An air of organisation and safety consciousness pervades Eugene Sheridan's yard.

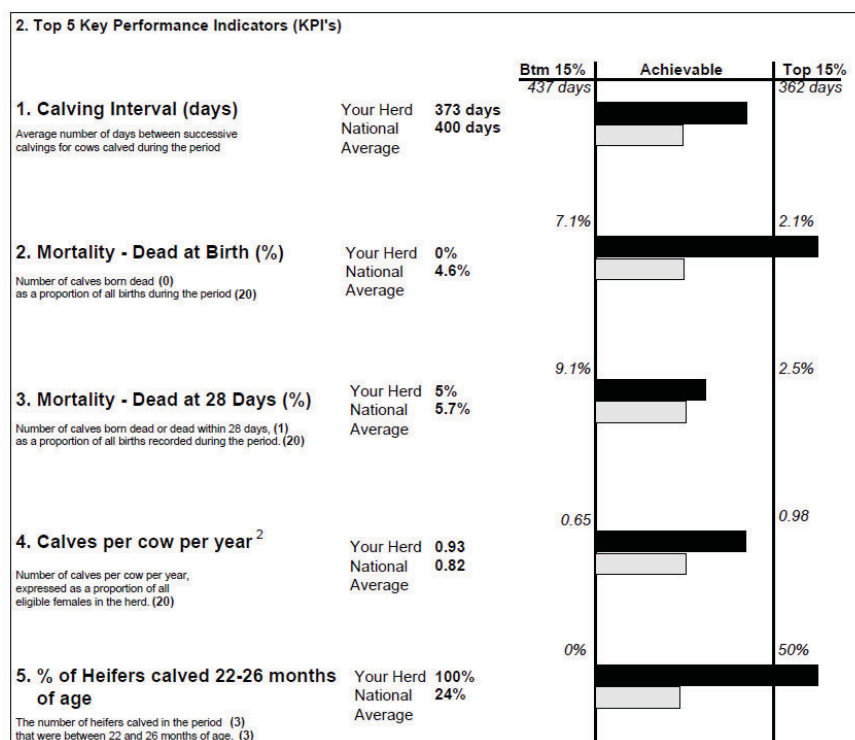
Picture: Sally Turnbull

quality. As cows will be spending a period producing milk off silage, high quality is paramount."

Soil samples are taken to identify requirements for lime, phosphorus and potassium. Eugene chose to spread a compound fertiliser this year for first cut and was extremely happy with yield. This silage will be analysed in October and the results will determine the level of meal fed during winter. "We've changed from pit to bales this year," says Eugene. "I find them a lot easier and convenient to work with than pit silage."

Eugene, like many other farmers, places a strong emphasis on health and safety and he returns to this theme. "Farming is one of the most dangerous occupations around and, yet, many farmers are of the mindset that accidents will never happen to them. I've seen farming accidents cause additional, avoidable, pressures and stress on family farms, be it tillage, beef, sheep or dairy. I believe all farmers, whether full- or part-time should have a completed health and safety document to hand and revise it annually."

Figure 1: A screenshot from Eugene Sheridan's ICBF beef calving report



Precision lime making a difference

Eilish Burke
Teagasc tillage advisor

Bertie Ennis, his son Paul, and nephew Martin are tillage farmers, just outside Naul, north county Dublin. The business consists of 430ha, of which 350ha is tillage, growing both winter and spring crops and 80ha of grassland for hay and silage. In July 2016, Martin and Paul decided to try out precision soil sampling.

"We chose a block of 28.9ha which has been in continuous winter wheat for the last 25 years," explains Martin. "We could see a picture developing on the ground and getting slightly worse year on year. The three fields aren't suitable for any other crop so we had to look at ways to identify stale parts in the field and find ways to improve the situation."

At Ennis Farms, all fields are soil-sampled every four years. The results are compared with those for the previous soil test results. This continuous wheat block was last sampled in 2011 where three soil samples showed soil pH levels ranging from 5.56 to 6.9 and lime recommendations from 2.5 to 7.5t/ha.

"It was clear that there was huge variation in pH and we wondered

whether this unusual situation might justify an even more tailored approach," says Martin. Paul and Martin started thinking about precision soil sampling and Bertie was happy to let them go ahead: "You have to try new things and not always do what you have always done. An experiment might backfire, of course, so we tried it at small-scale initially."

Ennis Farms went ahead with the precision soil sampling in September 2016 on the 28.9ha of continuous wheat ground. The block was mapped using GPS (Figure 1) and one soil sample was taken approximately every hectare, with 20 cores being taken per soil sample (Figure 2).

Paul describes the process: "It took around three hours for the soil samples to be taken; we didn't have to do anything just point out the block we wanted done." It took two weeks for Ennis farms to get the detailed results of the samples. Bertie says: "Every hectare was given an individual result and recommendation for lime, P and K."

On first glance at the soil sample results, the lads could immediately relate them to what they had observed in this block of three fields over the years. "You know all your ground inside out, you walk and drive through it a number of times a year and you can see where the crop is heavier and



where it's lighter," says Martin.

Having looked at where the high levels of lime were needed in the field; they agreed that these were the lighter yielding parts of the field.

They decided to act on the precision soil sample results for lime only last year and to look after P and K as they always have. They got in a contractor to spread the lime on top of the ploughed ground.

They gave him the map of results showing how many tonnes were needed on each hectare, the contractor was then able to follow the map and shut on and off the spreader accordingly, costing Ennis farms €25/t

Figure 1: Continuous wheat ground

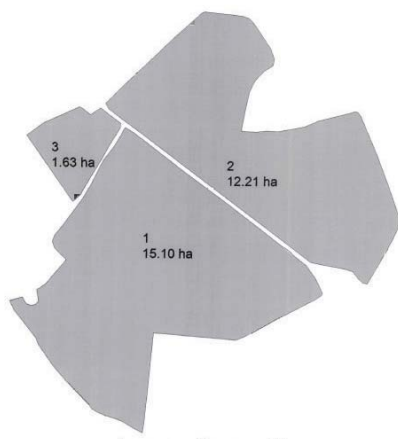
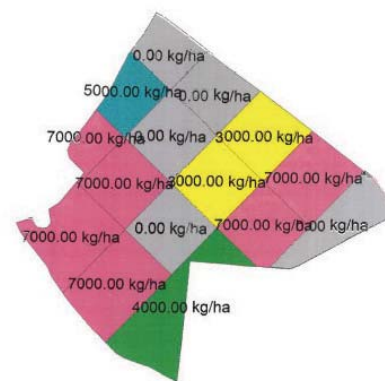


Figure 2: Where the precision soil samples were taken (28 samples)



Figure 3: Lime recommendations mapped for 15.1ha block





Eilish Burke and
Martin Ennis.

Optimum pH levels

Soil samples analysed by Teagasc in 2016 show that approximately 63% of grassland and 47% tillage soil samples are below the optimum soil pH levels and need lime.

Target soil pH levels for tillage crop

Every crop is different and therefore requires different target soil pH levels for optimum growth and to achieve high yield production. The target soil pH for a number of common tillage crops are shown in Table 1.

Table 1: Optimum soil pH for a range of tillage crops on mineral soils

Crop	Optimum soil pH
Beet, beans, peas and oilseeds	7.0
Cereals and maize	6.5
Potatoes	6.0
Peaty soils	5.5 to 5.8

Benefits of liming

Soil pH has a significant bearing on the soil nutrient availability, unlocking soil phosphorus (P) and potassium (K). The goal is to maintain tillage soils in the optimum pH range (6.5 to 7.0) for sufficient uptake of soil nutrients and efficient use of applied nutrients during the growing season. Monitoring soil fertility through regular soil sampling is fundamental to either building or maintaining soil pH or P and K depending on soil test results.

Table 2 (below) shows the average levels of lime lost through drainage (rainfall), crop removals and N usage. Soil analysis will give reliable advice on the annual requirements for the soils on your farm as it will vary depending on soil type and annual rainfall.

Table 2: Average levels of lime lost through drainage (rainfall), crop removals and N usage

Lime removals per year	Kg/ha
Drainage (leaching)	250 – 625
Spring barley 7.0t/ha or winter wheat 10t/ha	105 – 150
150kg to 250kg nitrogen	300 – 500
Total lime required	655kg to 1,275kg/ha/yr

of lime spread verse €33/t to 35/t variable spread.

Ennis Farms were impressed by the results. “It’s a far more even crop across the board and what were the lighter yielding parts of the field are looking much heavier. The difference is unbelievable and that’s just from acting on the liming.”

Cost effectiveness

Before Ennis farms had done the precision soil sampling, they would have blank spread two tonnes of lime/ac:

- Soil sampling (one sample/8ha) = three samples x €25/sample = €75.
- 29ha = 71.51ac x 2 = 143t of lime needed.
- 143t x €25 spread = €3,575.
- €75 soil sampling + €3,575 liming and spreading = €3,650 total cost.

Precision soil sampling:

- Precision soil sampling (one sample/1ha) = 29 samples x €34/sample = €986.
- 103t of lime required x €25/t spread = €2,575.
- €986 soil sampling + €2,575 = €3,561 total cost.

Ennis Farms were apprehensive at first about precision soil sampling, however, to date the crop looks a lot more even and with better yield potential. The combine will tell the real story in terms of extra grain production and payback.

“ Precision liming is a very targeted approach but in most situations carefully taken soil samples every 2ha to 4ha will provide a sound basis to good lime advice for the soils on your farm. Where soils have not been sampled in the last five years consider taking soil samples over the coming weeks/months

– Mark Plunkett,
Teagasc Johnstown Castle

Another block

Martin summarises: “We will precision soil sample another block of ground this year and hopefully continue doing so until all our own ground is done.”

They have not started variable rate spreading P and K due to spreading equipment availability and costs, plus there is not as much variability with soil P and K levels compared to the soil pH levels across fields tested to date. Nevertheless, a more targeted approach to P and K applications should offer further cost savings.

How salad leaves can feed a family

This farm family in Cork produces a healthy crop and a healthy income from just five acres

Dan Clavin

Organic Specialist, Teagasc Rural Economy Development Programme, Athenry

Originally from Dublin, Rory and Sheila Magorrian, moved to north Cork in 2001 and purchased the 20 acre, Kildinan, farm in the rural hills surrounding the village of Ballyhooley.

"When I was made redundant from my printing job in 2009, my wife Sheila and I decided to start our own business growing vegetables and mixed salad leaves," says Rory. "We had a keen interest in growing vegetables and were keen to make the most out of the farm. I completed a horticulture course delivered by Jim Cronin based in Killaloe, Co Clare, and made the decision to convert part of our farm to organic production.

"This time also coincided with the arrival of our two sons, Dylan (nine) and Sean (eight)."

Organic

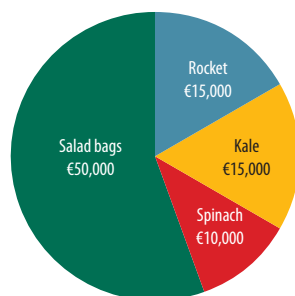
The farm was entered into a two-year conversion period with an organic certification body in 2012 and, in February 2014, the farm achieved full organic status. "We began by growing a wide range of vegetables, salad leaves and organic eggs and supplying these direct to local supermarkets," says Sheila. "We also operated a local box delivery scheme and sold produce at a local farmers' market."

During the last year, a number of changes have been made including:

- Financial turnover has been maintained by streamlining production and marketing to concentrate more on "higher-value" salad crops which are now supplied directly, and exclusively, to seven local retail supermarkets in Co Cork.

Figure 1

Annual turnover (2017 estimate) for Rory and Sheila Magorrian



- Labour usage has been re-organised so that the enterprise can operate with two employees (husband and wife, Rory and Sheila) down from three in 2016.

- A new blueberry orchard has been planted which will literally start to bear fruit from 2018 onwards.

Economics of the business

Turnover for the enterprise for 2017 will be approximately €90,000. "Income is relatively constant throughout the year," says Rory. "The main costs amount to €15,000 to €20,000 per year and include packaging, printing, labelling, diesel for deliveries, seed, compost, electricity and infrastructure upkeep."

Land details for Kildinan Farm 2017 - five acres total

Crops	Acres
Field scale vegetables – kale and spinach	2.0 acres
Cloches (movable polythene tunnels): Four in summer – lettuce, rocket; Eight in winter – spinach, some lettuce	0.5 acres
Polytunnels (five) including one for plant propagation: salad/lettuce leaves, some domestic veg.	0.3 acres
Orchard – blueberries (new)	0.1 acres
Total salads/kale and spinach	2.9 acres
Green manure crops (to build soil fertility) Red clover, buckwheat, phacelia (mainly field scale)	2.1 acres
Total	5.0 acres

Keys to success

It is clear that Rory and Sheila generate a decent income from a relatively small acreage. Rory says: "I am constantly learning, researching and willing to try new things. We use poly-tunnels and movable cloche tunnels all of which I have more or less built myself. These help to extend the growing season and allow us to grow crops during the winter. Where there is the





Teagasc specialists
Andy Whelton and
Dan Clavin with Rory
Magorrian.

option, I prefer to purchase second hand equipment and machinery.”

According to Sheila, they combine their individual strengths to make the business work. “Supplying just the supermarkets may seem like a gamble but it frees up time for the farm and the family. Rory has done a lot of work on marketing and I do more on the administration and paperwork side. We each work 35 hours per week, which is less than when we were going to the farmers’ market and operating a veg delivery box scheme.”

Overall, what advice would Rory and Sheila give to anyone considering going into organic vegetable production on a small holding? Rory says: “The market is there but at the same time you have to work on it yourself. I believe the model operating on our farm can be replicated around the country.”

Sheila points out the difference in production standards between organic and conventional growing with organic growing requiring a more organised and planned approach to soil fertility, pest and disease management.

“Organic horticulture is not for the fainthearted. You must be willing to prepare for the possibility of crop failure... but we always take an educated gamble in such cases.

“Having a real interest in what you do and a desire to keep on getting better is the most important thing,” concludes Rory.



Sean (eight) and Dylan (nine) with some of the edible flowers produced on the farm.

The organic market

In Ireland, the demand for organic produce continues to grow and is now at its highest ever level (€150m/ year; source – Bord Bia, January 2017). This is a growth of 22% in market size in the last year, making Ireland the second fastest growing organic market in the world.

One-third of total sales by value comprises vegetable and fruit. Approximately 75% of this is imported so there is an opportunity to supply more home grown organic produce. Traditionally, market outlets for organic fruit and vegetables were confined to farmers’ markets and box delivery schemes but locally sourced organic fruit and veg has started to appear more regularly on supermarket shelves in recent years.

Experience shows that those who enter the sector with a good plan and passion for what they do succeed in selling their produce as the demand for quality locally grown organic fruit and vegetable is strong.

Organic horticulture in Ireland

There are approximately 400 organic horticulture operations in Ireland, which vary in size from back garden areas to intensive market gardening enterprises with high levels of mechanisation. In general, field-scale production is restricted to good arable soils with a suitable climate. Most production is in the east, southeast and the midlands. However, intensive production is possible in a much wider range of areas through the use of polytunnels.

Organic horticulture producers require skilled management and planning and a good marketing strategy. Often, an array of crops is required. This is necessary to implement an effective crop rotation to help combat weeds and disease and build soil fertility. A range of crops also helps to satisfy market requirements.

Organic growers must adhere to strict EU standards with restrictions in the types of nutrients, seeds and composts and other inputs. Normally, more land is required than for conventional production to allow for areas of green manure which help build soil fertility and control pests and diseases.

More information

Teagasc: www.teagasc.ie/organics
www.teagasc.ie/horticulture

DAFM: www.agriculture.gov.ie/farmingsectors/organicfarming/

Organic cert bodies
IOFGA: www.iofga.org
Organic Trust: www.orgaictrust.ie

Limerick Organic Beef Discussion Group strives for better profitability

The Croom Organic Beef Discussion Group operates to the mantra that 'a good discussion group generates better profitability'

Padraig Fitzgerald
B&T Drystock Advisor, Teagasc,
Kilmallock, Co Limerick.

The organic farming message really took hold in Limerick and historically there have always been a large number of organic producers in the county. Currently, there are 125 organic producers in Co Limerick. 2016 saw the introduction of the new KT discussion group scheme and with it many new discussion groups were born, one of those being the Croom Organic Beef Discussion Group.

This group brought together participants from existing groups and farmers entirely new to the discussion group concept. The Croom organic group, like many Teagasc discussion groups, has a wide and varied membership. It has 18 group members, most of whom are farming part-time while holding down a full-time off-farm job. The members come from right across the county but find the benefit of the group meetings worth travelling for.

The difficulty for organic farmers in existing groups was that they were in with a group of conventional farmers and were not benefiting fully from their membership. It made sense to bring these farmers together.

The average farm size of the group is 27.5ha with an average stocking rate of 1.2LU/ha. This will increase in the next few years as there are five

new entrants to farming in the group who are building livestock numbers and stocking rate.

The organic status of the group members varies. While some members have full organic status and have many years of farming experience; others are starting out on their journey and are in the conversion two-year period before they achieve full organic status.

It's this range of experience that is so valuable. The experienced members have much information to pass on to the new ones who in turn bring great enthusiasm to the group. This drives on the experienced members to get even better.

So why is organic farming such a success in Co Limerick and why are there so many people interested in it? There are a number of reasons. The members of the Croom group want to be profitable. They were looking at their traditional beef systems and could see that they were making little or no money from them. Outgoings were high and the price of beef didn't cover the costs of the system.

Members of the group are all producing organic beef either as an animal for slaughter or as a weanling or store animal for sale in the organic sales. The majority of the group are producing weanlings while the others are buying in cattle to finish. The outlet for most organic beef is export to European countries as a high-value food product. So these farmers aimed to get a better price for their beef, often up to 25% more than conventional prices and also to reduce their costs in the system, for example very low fertiliser and feed costs.

Another reason why farmers went into organic farming was because of the Organic Farming Scheme. At present the scheme is closed due to the fact it has been so successful in recent years attracting over 600 new entrants in the last number of tranches.

With low returns from beef systems, these farmers were looking for ways



to boost farm income, and the organic grant looked attractive. A number of farmers in the group are young new entrants who are starting out in farming so they saw the scheme as a way of boosting their income in those first difficult years as they were getting established.

What members want from the group
Organic farms today are being run more and more commercially and economic factors are influencing the decisions being made.

The Croom organic group is no different. Gone are the days where, if you were organic, you were seen to be just hobby farming and keeping the thing ticking over.



Padraig Fitzgerald (left) with the Croom, Co Limerick, Organic Beef Discussion Group.

The members of the Croom group are driven and like the new entrants to farming in the group they want to see a return for their hard work. They are looking in the long term at organic world markets and seeing where their product is going to end up and what prices they hope to get into the future. It takes a lot of long-term planning to be an organic farmer.

Over the next 12 months, the group want to concentrate on three main objectives: increase productivity, increase efficiency and increase profitability.

There are no easy or simple solutions to these objectives and the answer will be different for each person.

Benefits

The group have listed the benefits that they enjoy from being in the Croom organic group:

• **A huge amount of valuable experience:** Farmers new to organics, and members going through conversion plans, find the experience that they can tap into invaluable.

• **They can make better decisions:** Many decisions have to be made on a farm daily, weekly, monthly and yearly. If these members can get a small bit of help in making these decisions they will take it. This often comes back to individuals' own experiences and what they did in a similar situation in the past and whether it worked.

• **Establishing personal relations within the group:** Teamwork and building personal relations and friendships is critical in business and it's no different in farming. The benefits of this networking are hard to quantify precisely but without a doubt the members place an important value on this in the group.

• **Problem sharing:** The idea of the group is that people can come to the meetings with their own production challenges and be confident that they will get help and non-judgmental advice. The information within the group also has to be real and factual. There's nothing woolly about this discussion group.

equine

Equine and dairying complement each other in Galway

Wendy Conlon

Equine specialist, Teagasc Rural Economy Development Programme

Michelle Kavanagh Gilligan and her husband John farm 141ha near Eyrecourt, Ballinasloe, Co Galway. John began jointly managing the farm with his father, Martin, about 10 years ago and over time they expanded from 80 to 260 dairy cows. John is now managing the farm himself and is targeting a 340-cow herd for spring 2018. In parallel with the dairy expansion, Michelle has developed "Avalon Sport Horses and Ponies".

There is a symbiotic relationship between the two businesses with Michelle and her student rider, Shane, both assisting the dairy enterprise. In turn, the heavy lifting machinery elements of the equine enterprise are met by John. The businesses complement each other in other ways too. The mixed grazing system of cows and horses works particularly well

for the horses in terms of parasite control and keeping the pastures clean and well grazed.

"Both Martin and John have always supported the equine enterprise," says Michelle who has a degree in business and equine and over the last decade or so has gained extensive industry experience in both the thoroughbred and sport horse sectors.

"I was always most passionate about sport horses and ponies but found the experience of thoroughbred sales preparation and stud work fascinating and it really brought home to me the absolute importance of turnout, husbandry, and attention to detail."

Michelle also worked for a professional event horse production and dealing yard which gave her insights into training programmes, marketing, pricing and selling.

The equine enterprise is multi-faceted. It includes a small band of broodmares, homebred youngstock, purchased youngstock which are being broken and produced for sale, and a very select number of livery



clients. Occasionally, horses/ponies are taken in from clients for breaking, sales production or to be produced for studbook inspections or competitions.

The equine enterprise is financially self-sufficient, debt-free and is not drawing on the profits of the dairy enterprise. Having facilities which permit professional production is important to Michelle and she therefore has no hesitation in re-investing in the business with additional plans to upgrade fencing, add a mechanical horse walker, cross country schooling fences and further housing facilities to the enterprise in the near future.

Business acumen

Over the years Michelle says she has always dabbled in buying and selling ponies and horses alongside her other jobs, building her clientele over the years. A testament to her business acumen is that the development of an eight-horse American Barn and an outdoor arena with superb high-spec all-weather surface were possible a year ago through re-investing profits purely from her equine enterprise, i.e. the sale of horses and ponies.

Michelle specialises in performance ponies and produces also a few horses for the both the amateur and

Michelle Kavanagh Gilligan worked for a professional event horse production and dealing yard which gave her insights into training programmes, marketing, pricing and selling.





Michelle Kavanagh Gilligan has a degree in business and equine and over the last decade or so has gained extensive industry experience in both the thoroughbred and sport horse sectors.

professional eventing market. Her long-term goal is to breed Connemara Cross Warmblood ponies. "We'll aim to breed good-looking sound ponies with a nice jump and add value through the production of ponies that are very well-schooled and exceptionally safe ponies for the 10-year-old to ride; easy ponies that are well-mannered."

Michelle acknowledges that horses take longer to produce and feels that there is a very accessible niche market for ponies that are produced in a professional way. "I feel that too many ponies come to the market without sufficient production and also that there aren't enough breeders focusing on producing performance ponies."

Michelle believes in absolute honesty in her dealings with her clients. She works hard to ensure that the client and pony/horse are well matched and is never in a rush to sell. Given that in many cases the end user is a child, safety is paramount. She will even encourage a customer to take a bit more time to ensure that hers is the right animal for them and always insists on vetting prior to sale, sometimes at her own cost where a client is happy to proceed without.

Michelle is adamant that no young

pony will leave her yard until it has been out at a few shows or training events and is comfortable with traveling, crowds and the show environment. "Time spent doing the extra bit with them reaps further dividends in the long run," she says. "It ensures clients get what they pay for and I can stand over the pony or horse."

Social media

Social media, particularly Facebook, is proving to be an excellent sales tool for the business and Michelle says she is constantly collating photos and videos to promote her stock through this interface. She has steadily grown her followers to almost 2,000 and has widened her customer base to as far afield as Sweden through this medium.

"I believe it is absolutely crucial in today's marketplace to be present and active on social media and particularly to be able to forward videos of horses/ponies to prospective customers," says Michelle. "The majority of potential buyers aren't keen to come for a face to face view until they have made a preliminary inspection on video first."

Through the network of existing "friends", who may "like" or "share"

a post, the news feed can travel quite a distance she has found. "I have sold five animals in recent months through this medium and I encourage buyers to keep in touch after the sale by posting photos and videos of the animal in its new home with a satisfied customer on board."

KT discussion group

In 2016, Michelle joined a Knowledge Transfer (KT) discussion group in Galway, which I facilitate. There are 17 other members from across counties Galway, Clare and bordering parts of Tipperary. "I have already gained some great ideas for developing facilities from visiting other farms through the group," says Michelle. "I've plans already in place to put some of those ideas into action."

"Not being a Galway native, I find it's a great way to meet other like-minded people from the surrounding area. The group provides a forum to not only create new business contacts, but also to learn from other production systems. Everyone has something of interest to contribute. Having an open mind and being ready to share what you have learned yourself benefits all in the long run," she concludes.

health and safety

Farm safety code of practice:

Have you your copy of the updated version?

John McNamara,
Teagasc Health and Safety Specialist

The Health and Safety Authority (HSA) recently published a revised version of the "Code of Practice for Preventing Injury and Occupational Ill-Health in Agriculture". This document is more commonly known as the "Farm Safety Code of Practice".

The revised Code was developed with assistance from Teagasc and the Farm Safety Partnership. The original Code was first produced in 2006 following the passing into law of the Safety, Health and Welfare at Work Act (SHWW), 2005.

The revised Code reflects technical progress in the sector, changes in farming practice, equipment and accident trends since 2006. The revised code has a green cover to distinguish it from the previous version and is available from the HSA and Teagasc.

The revised Code came into operation on 1 July 2017. The old version will be phased out over 18 months from that date. This means that persons will have to complete the revised version by 31 December 2018.

The revised Code of Practice (COP) is designed to help farmers to meet their obligations under the SHWW Act 2005 in a straightforward and practical way. It focuses on the most common hazards and provides workable solutions that can be put in place with minimal or even zero cost.

The Code comprises two documents - a Guidance Document and a working Risk Assessment Document. The Guidance Document is available on the HSA and Teagasc websites while the Risk Assessment Document (RAD) is available to farmers from the HSA, Teagasc and consultants.

It is a legal requirement to have an up-to-date RAD, and a HSA inspector can inspect the document on a

farm visit. Completion of the RAD is a requirement for participation in Bord Bia Quality Assurance Schemes. Trained staff in both Teagasc and agricultural consultancies provide a half-day training on completion of the RAD. It is a requirement of the Department of Agriculture Food and the Marine (DAFM) TAMS II scheme that applicants have completed the half-day training or the Green Cert in the five years prior to submission of a payment claim.

RAD evaluation

An evaluation of the original RAD and half-day training was conducted as a PhD study by me with the following main findings:

- Farmers view safety management as an important issue (99%).
- RAD is easy to understand (88%).
- Pie charts (97%) and pictures (96%) aid communication.
- Attendance at half-day RAD training is worthwhile (100%).

The data collected indicates that farmers found the document both easy to use and useful.

The study found that users filled the document meaningfully but to a limited extent with an average of three controls identified for implementation per farm. Attending half-day training led to a 40% increase in controls identified for action.

An on-farm study indicated strongly that farmers who implemented the controls they identified had safer farms overall. This suggests that both identification and implementation of controls on an on-going basis is the key to safety management.

In summary, actions needed to comply with the Risk Assessment requirement of the Safety, Health and Welfare at Work Act, 2005 are as follows:

- If you have already completed a RAD, fully complete and implement the new (green) RAD before 31/12/18



- If you have not completed a RAD, do so as soon as possible.
- If you have not attended a half-day training course on the RAD you are advised to do so as soon as possible, but it is not a legal requirement.

If your farm has more than three employees (count in the farmer, regular worker and family members who are regular workers), which make-up 5% of farms nationally, the legislation requires that a full Safety Statement be prepared.

Farm safety this autumn

In 2017, at least so far, has seen the trend of increased farm deaths continue. To the end of July 14 fatal accidents had taken place (provisional figure). Trends in farm fatal accidents indicate that they can occur at any time so vigilance is necessary in autumn and winter. Some of the most hazardous aspects of farming are:

Tractors and vehicles

Tractors and vehicle deaths account for 29% (nearly one in three) of all farm deaths.

- Being struck or crushed by a tractor/vehicle accounts for 73% (almost three-quarters) of vehicle and machinery farm deaths on farms.



Professor Jim Phelan, chairman of the Farm Safety Partnership; Martin O'Halloran, HSA chief executive; and Professor Gerry Boyle, Director of Teagasc.

Such accidents occur principally in or around the farmyard. It's a matter of being vigilant at all times particularly where there are blind spots or where a person can get crushed.

- Reduced speed reduces risk.

Vehicles should also be secured when stationary by lowering equipment and applying brakes/handbrakes and applying additional controls if necessary. Vehicles can roll on even the slightest slopes.

- When accessing public roads make sure that the vehicle and licensing of the driver complies with the requirements of the Road Traffic Acts, In particular, ensure that there is adequate visibility at farm and field entrances to view on-coming traffic.

Farm machinery

Machinery related accidents account for 17% (almost one in six) of farm deaths:

- Becoming entangled in a power shaft or machine part accounts for about 22% (more than one fifth) of farm machinery related deaths. This is one of the most gruesome accidents to occur. Make sure that all power shafts and revolving machine parts are completely covered. This applies in particular to machinery such as vacuum tankers, agitators or

grain rollers augers which are used when the machine is stationary. The operator could be close to the moving parts. This is by far the most dangerous position for power shaft use.

- Turn off all machine moving parts before ever approaching them for maintenance or adjustment.
- Never get into a crush zone between a machine and a tractor to make adjustments, as crushing causes instant death. Watch out for heavy weights when folding in, or out, machinery as these can crush and kill.

Animals

Livestock accidents account for about 14 % (one in seven) of farm deaths:

- Bulls account for 27% (more than a quarter) of livestock related deaths. When separated from the herd bulls should not be left on their own in a shed or paddock. They should always be with companion animals.
- Cows and heifers now account for 50% (half) of livestock related deaths. Farmers should also be vigilant when dealing with suckler cows as getting between a cow and calf can provoke a cow attack. Always stay close to a fence or a vehicle to give you a means of escape.
- When treating animals, make sure that crushes and handling facilities

are adequate. In particular, never enter a crush with an animal.

Working at heights

Falling from a height (10%, one in ten) and collapsing loads (7%, one in fourteen) are major causes of farm deaths. Particular vigilance is required when working at heights. This applies particularly when tying loads of bales.

- Make sure that loader attachments are properly secured so that they don't become detached at height and collapse.
- Make sure that bales of hay or straw are securely stacked so that they cannot collapse.

Slurry/water

Drowning or slurry gas accounts for 10% (one in ten) farm deaths.

- Cover all slurry manholes and fence slurry tanks.
- Only agitate and move slurry on a windy day.

Further information on farm safety is available at the following websites:

- www.hsa.ie/eng/Your_Industry/Agriculture_Forestry/
- www.teagasc.ie/rural-economy/farm-management/farm-health-safety/



Results-based scheme under the spotlight

The Results-Based Agri-Environment Pilot Scheme (RBAPS) may become a model for future schemes

Kieran Kenny
Teagasc Soils & Environment Advisor,
Castlerea

The north Leitrim landscape consists of rolling hills overlain with a network of hedgerows and small fields which are home to low-intensity cattle and sheep enterprises. Much of it is high nature value (HNV) farmland. Afforestation, emigration and land abandonment pose an increasing threat to rural viability and to these species- and habitat-rich semi natural grassland landscapes.

Teagasc advisor Cian Condon says: "Each farmer has to identify the optimum mix of income from the

marketplace and through providing public goods such as biodiversity."

One of Cian's clients, Hubert McTernan, farms in the townland of Conray 8km west of Manorhamilton. "Between owned, leased and commonage land, we farm about 90ha," says Hubert. "It's fragmented (four blocks in Leitrim and one in Sligo) and from the production point of view a lot of it is classed as either marginal or hilly ground."

Stock consists of 270 crossbred ewes, nine suckler cows and their calves, and one bull. In many fields, livestock can only be checked on foot and most machinery operations are impossible. Hubert's off-farm employment takes up 50 to 60 hours per week and he says that his retired father (Paddy) is an

expert stockman and plays an invaluable role on the farm.

The McTernans have been involved in environmental schemes for many years including REPS, AEOS and currently the Green Low-Carbon Agri-Environmental Scheme (GLAS). Their GLAS application consists of five actions: 10ha of low-input permanent pasture, 12ha of commonage, 15 bird boxes, 15 bat boxes and the protection of an archaeological monument.

The GLAS scheme requirements are relatively easy to implement and are generating the maximum payment of €5,000 per year. Their GLAS advisor Aoife King (FRS) suggested to them that they may be suitable for a new initiative, the Results-Based Agri-Environment Pilot Scheme (RBAPS).



Above: Eyebright and sedges are part of the valuable biodiversity encouraged by the scheme.

Far left: Hubert McTernan, Cian Condon and Paddy McTernan.

higher scores and thus increase his payment per hectare.

“Our score for this piece of land is ‘7’ earning a payment of €230/ha,” says Hubert. “An increase of one unit on the scale would raise his payment by approximately €50/ha. “Controlling rushes through topping would increase the cover of positive indicator species and in turn increase our score. But topping is difficult on this site due to the steep slopes so a more targeted grazing approach with higher sheep numbers or a few horses may be the solution.”

To date, it is slightly undergrazed with a stocking rate of 3.5 ewes per hectare for a collective period of nine months. Hubert says: “We know what’s wanted and it is up to us to deliver the output.” Unfortunately, as RBAPS is a pilot scheme with only two years’ payment, it is hard to justify the farmer making too many radical changes to management within this timeframe.

However, if the wider scheme is continued over a longer period, this issue would be solved and there would be a greater capacity to increase income on farms and offer positive benefits to the local environment. “Any scheme which draws on local farmers’ knowledge as well as science has to be a good thing,” concludes Hubert.

“When I became aware of RBAPS through Teagasc, I could immediately see the potential on this farm for the two schemes complement each other,” says Aoife.

RBAPS is a three-year EU-funded project running until June 2018 in Co Leitrim, the Shannon Callows and the Navarra region in Spain. It is an example of a locally led scheme (where farmers play a role in suggesting actions which they believe will benefit the environment and are paid based on the degree to which these actions succeed in delivering desirable outcomes such as greater species diversity).

In the Shannon Callows, the options available to farmers include managing species-rich flood meadows (with rare plant communities) or wet grassland suitable for breeding waders (important bird populations of curlew, lapwing, redshank and snipe). In Spain, the focus is on maintaining the biodiversity associated with traditional perennial crops such as vineyards, olives and almond groves.

RBAPS is similar to the European Innovation Partnership (EIP) projects that are currently being promoted by DAFM and can be regarded as ground-up rather than centrally-led schemes. It explores how the Burren model of paying farmers for the qual-

ity of biodiversity achieved on their grasslands can be expanded to other areas.

“We are paid at different levels depending on how important the land is for nature and wildlife, and how well we manage it,” says Hubert. In Co Leitrim, 13 farmers are enrolled on the pilot scheme, with the focus on developing and testing biodiversity health checks for species-rich grasslands and areas that can provide habitat for species such as the rare Marsh Fritillary Butterfly.

Dolores Byrne, an RBAPS researcher based at IT Sligo, has given the participants training to enable them to understand the ideas behind the scheme and to assist them in achieving the best results. Dolores points out that “farmers in RBAPS are free to make management decisions to suit their circumstances, and payment is made only on the quality of product they provide.”

“We have a sheep grazed plot of 6ha in the species-rich measure for 2016 and 2017,” says Hubert. “This land has a number of positive indicator plants such as Eyebrights and Sedges, which are evidence of the generally good biodiversity condition of the land.”

Hubert has been advised on how to improve biodiversity and achieve

RBAPS scoring system

The payment rates are based on a scoring system of one (poor quality with zero payment) to 10 (highest quality with payment of €350/ha). The criteria that influence this score include:

- The number and cover of positive indicator plant species such as Orchids and Tormential.
- The number and cover of negative species such as noxious weeds and perennial ryegrass, vegetation structure, level of litter present, level of encroaching scrub, cover of bracken and a range of other damaging activities.

The assessment in the pilot scheme is undertaken by RBAPS staff, but in the future where a similar scheme is rolled out, it is envisaged that it would be carried out by trained agricultural advisors or the farmers themselves.

RDS FOREST AND WOODLAND AWARDS

Recognising excellence in forestry

The prestigious RDS Forest and Woodland Awards competition celebrates its 30-year anniversary this year, roughly the lifetime of a commercial conifer crop

Liam Kelly

Teagasc Forestry Development Officer, Mullingar

The RDS has been involved in forestry since the 1740s with many of Ireland's oldest remaining forests originally planted with the support of RDS grants (or premiums, as they were known). The Forest and Woodland Awards continue the RDS tradition of involvement in forestry. The aim is to highlight excellence in forest management by forest owners and showcasing what they are able to accomplish through the application of best practice and innovative management techniques.

As farm forestry in Ireland has developed, so too has the scope of the competition with the addition of new award categories. This year the prize fund extends to €15,000, with category winners receiving cash prizes along with the RDS silver medal and perpetual trophy, while category runners-up receive smaller cash prizes and a certificate of merit.

The award categories for 2017 are:

- **Production forestry:** divided into two sections: less than 15ha and over 15ha and is open to forest owners employing good silvicultural management on their farms.
- **Multipurpose forestry:** open to individuals and organisations that are expanding or developing existing or

new forest habitats through natural and environmentally sensitive means.

- **Community woodlands:** designed to inspire and reward projects involving community woodlands and forests established and managed in a sustainable way that benefits the landscape, the local people, biodiversity and the economy.

- **Teagasc Farm Forestry Award:** a new award for 2017, sponsored by Teagasc to promote the sustainable use of land that integrates farming and forestry. It aims to promote the positive contribution that forestry can bring to traditional farming practices and also to increase the number of trees that are being planted to help mitigate agricultural greenhouse gas emissions.

Midland winners

Over the years, the midland counties have produced several RDS Forestry Award winners. Some of these award winning forest owners are highlighted below:

Bill and Pat Connell

Collinstown, Co Westmeath
2016 production forest winner (over 15ha)

Bill Connell and his family planted 40ha of mainly broadleaves in 1995/1996. The species mix includes 16ha of sycamore (with some cherry), 9ha of ash, 10ha of oak and 5ha of Norway spruce. The ash was initially line thinned (one in seven) in 2009 and received a full thinning in 2013. With the abundance of timber, Bill invested in equipment to set up a firewood business, with his son Pat.

Bill is a founding member and a former chair of the Westmeath Farm Forestry Group. The group facilitates peer-to-peer learning and the sharing of forestry knowledge among growers in the county and between other forest owner groups.

Bill experienced difficulties extracting timber from his broadleaf woodland situated on relatively hilly land,

so he set about developing a suitable forwarder with a local machinery manufacturer. Other local growers came on board and along with some funding from Westmeath Leader Development Company; they were able to develop the first "Falcon forwarder". This has been a tremendous help locally with timber extraction.

All Bill's broadleaves have now been thinned at least once, with the oak completed in 2016. Access routes and tracks have been upgraded as part of the thinning strategy. Most of the work was carried out by Bill's son Pat along with many other trained chainsaw operators and foresters. The woodland is looking very impressive now and the benefits of his management interventions are obvious to all.

Future management will involve developing a thinning rotation across the site, encouraging a continuous cover approach and developing the recreational aspect of the woodland. Teagasc and the local forest owner group have held a number of walks on this site to date.



The Westmeath forest owner group visiting the award-winning site in 2016.



Of the RDS Awards, Bill says: "The scheme is exquisite and it is an honour to be recognised for the forest work that we have done. The RDS Awards command respect and the fact that it has been awarded by your forestry peers is very encouraging. It is also great to receive the financial award."

Pat Lynch

Delvin, Co Westmeath, winner, 2003
Pat Lynch says: "I was delighted to win the competition and its awards. Good species selection to match the site, along with proper early management, ensured a quality plantation was established."

"Winning the competition encouraged my interest in the future management of my crop, ensuring that it achieves its potential."

James Bennett

Mountrath, Co Laois, winner, 2006
James Bennett feels that the competition is very important from an educational point of view. "It makes

you assess what you are doing and why. It therefore focuses your attention on the quality of your own forest management. Preparing a good application form based on your own woodland management and highlighting what you do to the judges is important," he says.

Colm Foy

Co Longford, winner, 2012

"In the beginning, I was drawn to forestry farming as a financial venture. Over time as my farm continues to evolve, I realise that this progressive method of farming allows me to combine my business skills with the traditional farming skills I had already. I've been able to create a fulfilling successful career that I enjoy. Winning the RDS award in 2012 was just the icing on the cake."

Ivor Clegg

Mountrath, Co Laois, winner, 2014
Ivor Clegg has a hands-on approach when it comes to managing his woodlands. Of the competition, he says:

"It was great to be recognised for my forest management work. The anticipation of entering and wonderment at how I would do was thrilling. After winning, I am precluded from entering again for five years, but I hope to re-enter in 2019. The competition in itself is self-discipline has a great influence on current decisions that I make in managing my forest."

Testimonies

Based on the above testimonies, it is clear that forest owners who engage directly in the management of their forests and incorporate them into their overall farm business get financial reward, personal satisfaction and enjoyment out of it.

This year's competition is closed and judging is currently under way but forest owners not involved can consider an application for next year. The more innovative the better – virtually every farm in Ireland has at least a few acres whose optimum use could well be forestry. The competition will open next spring.

botanic gardens

Building a state-of-the-art turfgrass training academy

Colm Dockrell

Assistant Principal at the Teagasc College of Horticulture at the National Botanic Gardens

As part of our long-term commitment to training for the Irish turfgrass sector, Teagasc is developing a turfgrass training academy in the grounds of the Ashtown Food Research Centre. As part of the expansion of horticultural research and training on the Teagasc Ashtown site, an area of approximately one hectare was allocated to the new turf academy.

The new training academy comprises three golf holes, each measuring between 80m and 100m. Each hole has an elevated teeing complex, a green of approximately 200m² and two sand bunkers. The three greens were built to the most modern specification using a 10cm gravel raft with herringbone drainage and a 30cm root zone comprising sand and compost in an 80:20 ratio.

This design specification is similar to that introduced by the United States Golf Association in the 1960s. It has been refined many times over the years to produce a very high-performing playing surface. The construction provides a free-draining rootzone, a dry playing surface all year and a consistent ball roll.

Grass mixtures: A range of different grass mixes have been used. One green was sown with a Roundup-resistant fescue grass, the second with a combination of different fescue species and the third with a more traditional fescue/bent grass mixture. The remaining areas, including tee-boxes and fairways, were sown with a mixture of perennial rye grass, fescue and bentgrass.

The use of Roundup-resistant grasses is relatively new technology in sportsturf establishment. Apart from the control of broad-leaved weeds, being able to use the herbicide on our greens will enable us to maintain a pure stand of the fine-leaved red fescue throughout the life of the green and, in particular, it will provide us with an effective control for annual meadow grass (*Poa annua*) which is the most important weed grass on Irish golf greens.

Our choice of design specification, construction methods and grasses



reflects what is now the norm in modern golf course construction, where there is a strong emphasis on year-round play on high-performance playing surfaces.

As we have chosen to use high proportions of fescue on the various playing areas, we hope that we will be able to adapt a more sustainable approach to management, with a much lower reliance on fertilisers and pesticides. Seeding of the academy commenced in early June and grass establishment to date has been excellent. The final phase of the development is commencing shortly. This will include landscaping, tree

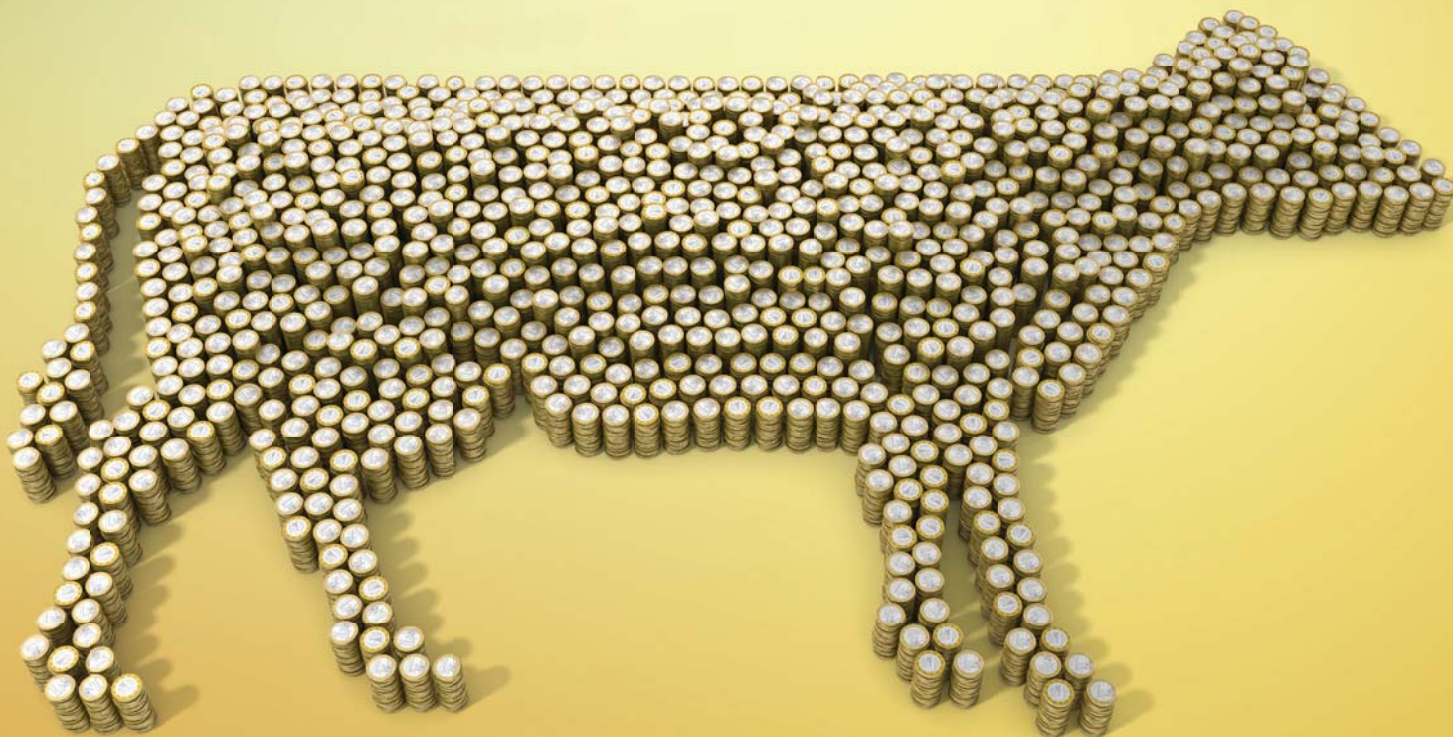
planting and the construction of the six sand bunkers on the site.

Dar Golf Construction will be coming on site shortly to construct the sand bunkers using the latest SportBond technology. In SportBond bunkers, the sand is placed directly on to a porous, bonded base. Water filters through the sand and into the SportBond layer where it is provided with the easiest path to the drainage pipes, eliminating sand wash, soil erosion and flooding.

The new Teagasc turfgrass training academy will be officially opened later this autumn in time for turfgrass training in the coming academic year.

Salmonella*

Infection costs Irish Dairy Farmers €112 per cow, per year¹



Can you afford
not to vaccinate with Bovivac S?

Bovivac® S

The only vaccine for Bovine Salmonellosis



See www.bovilis.ie for more information

*Figures are based on profit reduction in a non-vaccinated dairy herds testing positive for exposure to *Salmonella* at a milk price of €0.34/L. Bovivac S contains inactivated cells of *Salmonella dublin* and *Salmonella typhimurium*.

Use medicines responsibly

Legal category: ROI POM (E) NI POM-V

Withdrawal period - Zero days

Further information is available from your veterinary supplier, the product SPC, or MSD Animal Health, Red Oak North, South County Business Park, Leopardstown, Dublin 18, Ireland.

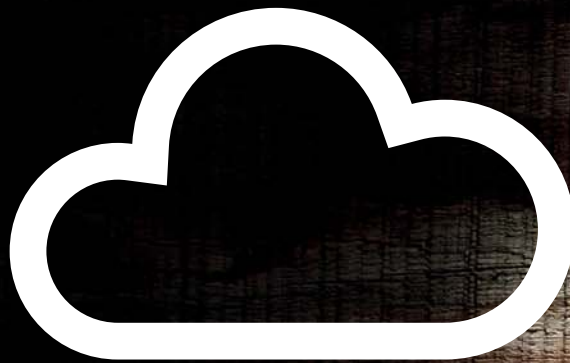
Tel: +353 (0)1 2970220 Email: vet-support.ie@merck.com Web: www.msd-animal-health.ie

1. O' Doherty et al., 2014, Effect of exposure to *Neospora caninum*, *Salmonella* and *Leptospira interrogans* serovar Hardjo on the economic performance of Irish dairy herds, J Dairy Sci, 98: 2789-2800

 **MSD**
Animal Health



Storm. Powerful, fast and effective.



Pasta



Secure



Available in Secure and a new Pasta formulation.

- The most potent rat killer
- For use around as well as inside buildings
- Effective even against resistant strains
- Palatable formulations for every need

www.pestcontrol.basf.com

 **BASF**
We create chemistry

Storm® contains flocoumafen. Storm® is registered trademark of BASF. Use biocides safely. Always read the label and production information before use.