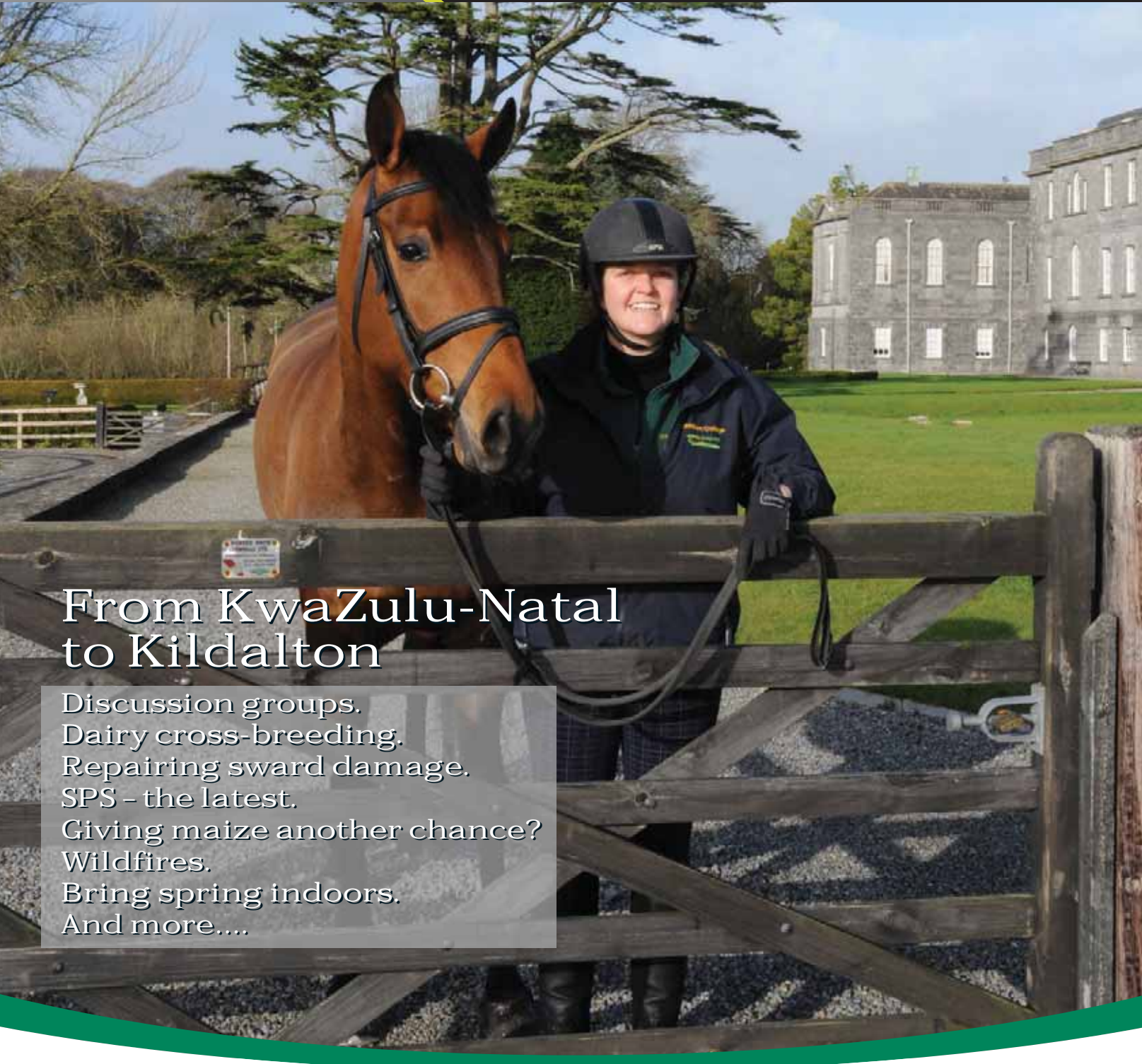




Today's Farm

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



From KwaZulu-Natal to Kildalton

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4-6 Upcoming events

Farm management

- 7 Computers: an essential farm tool
- 10 Learning from Jack and Eddie
- 12 The future of the rural economy
- 13 SPS — your most important form of the year

Dairying

- 16 The proven benefits of discussion group membership
- 18 Repairing sward damage
- 20 Dairy crossbreeding

Drystock

- 24 BETTER Farm: building on strengths

- 26 Maize: managing the risk
- 29 Teagasc Beef Manual

Forestry

- 33 Wildfire!

Tillage

- 34 Careful planning is key

Environment

- 36 Apply now for your derogation

Botanic gardens

- 38 Bring the spring in

HORSES
From KwaZulu-Natal to Kildalton
>> 30



COMMENT

The international impact of the internet



Mark Moore
Editor,
Today's Farm

On our cover we feature a young lady, Shannon Symons from South Africa, now studying at Teagasc Kildalton. Equitation and Stud Management courses are attracting increasing interest from foreign students. A sign of excellence certainly. Also, a sign of the increasingly globalised world in which we live.

Many of these international students learn about Teagasc Kildalton or gain information about the college via the internet and the Teagasc website. The internet is now an absolutely essential tool, and key source of national and international information for rural people and farmers in particular.

In our article on computers, we feature farmers who are no longer young but are intent that this technology should not pass them by. Many, if not all, farmers use the internet regularly. Teagasc offers courses catering to a range of skill levels. If you want to hone or build some computer/internet skills contact your local education officer...today!

Inár n-alt i ndáil le ríomhairí tugtar léargas ar fheirmeoirí nach bhfuil i mbláth na hóige níos mó ach atá ar intinn nár cheart don teicneolaíocht seo gabháil tharstu. Baineann go leor, nó formhór, feirmeoirí úsáid as an idirlíon ar bhonn rialta. Tairgeann Teagasc cúrsaí a fheastalaíonn raon leibhéal scileanna. Más mian leat roinnt scileanna ríomhaireachta/idirlín a fheabhsú nó a fhorbairt téigh i mbun teagmhála le d'oifigeach oideachais áitiúil...inniu!

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Cover | Shannon Symons from KwaZulu-Natal is pictured with 'Tayto' at Teagasc Kildalton College near Piltown, Co Kilkenny. Friends in Britain recommended the Equitation course at Kildalton to Shannon, an indication of the esteem in which these courses are held internationally. Picture by Mark Moore.

upcoming events

AGRICULTURAL RESEARCH FORUM 11 & 12 MARCH

• **Tullamore Court Hotel, Co Offaly**

The Annual Agricultural Research Forum will take place on 11 and 12 March in Tullamore. The objective of the meeting is to provide an opportunity for the presentation and publication of new scientific information relating to the Sciences of Agriculture (including animal and crop science, molecular biology and biotechnology), environment, soil, food, agri-economics and forestry.

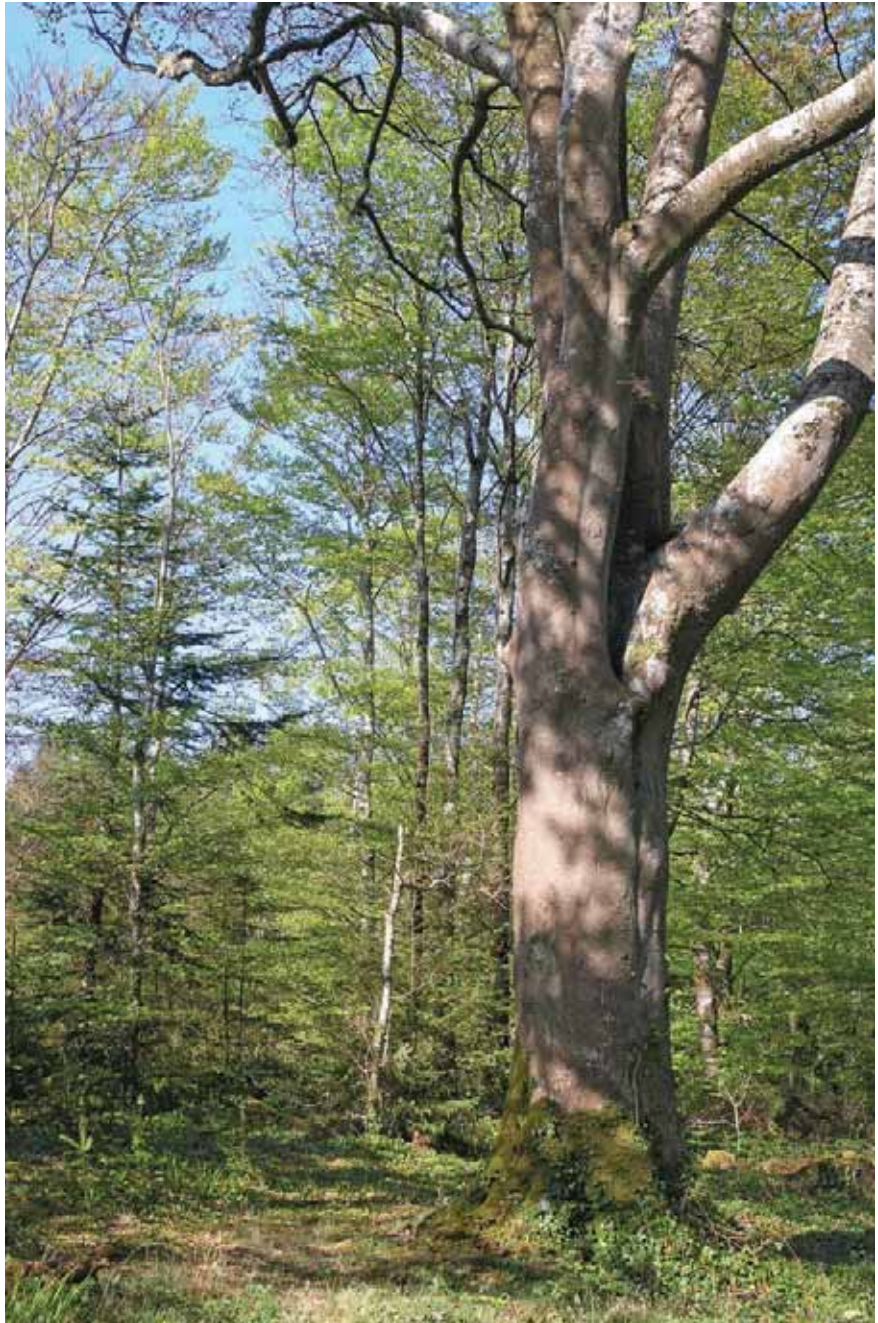
The forum places emphasis on novel, high quality research and on the professional presentation of results. The forum will provide an opportunity for scientists, specialists, advisers and others working in the above areas to interact and exchange views.

COLLEGE OPEN DAYS MARCH 2013 — NATIONWIDE

• **Get the full story on further and higher level courses in agriculture and horticulture**

Teagasc college open days will take place throughout the month of March. Come along and meet college lecturers, current students and prospective employers and obtain information on all further and higher level courses in agriculture, horticulture, horses and forestry.

Get an outline of careers in agriculture, agri-business, amenity and production horticulture, forestry, horse breeding and training and career profiles of graduates and have a guided tour of college teaching and recreational facilities and visits to the colleges' modern farming and horticultural enterprises.



The Teagasc college open days will feature talks on courses, such as forestry.

• Continues page 6

Teagasc college open days nationwide

Date	Location
Tuesday, 12 March 11am – 1pm	Clonakilty Agricultural College, Darrara, Clonakilty, Co. Cork
Friday, 15 March 10am – 1pm	Kildalton Agricultural & Horticultural College, Piltown, Co. Kilkenny
Wednesday, 20 March 10.30am – 2pm	Gurteen Agricultural College, Ballingarry, Roscrea, Co. Tipperary
Thursday, 21 March 10am – 3pm	Ballyhaise Agricultural College, Ballyhaise, Co. Cavan
Thursday, 21 March 2pm – 5pm	College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin 9
Thursday, 21 March 10am – 2pm	Pallaskenry Agricultural College, Pallaskenry, Co. Limerick

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upcoming events



A series of Teagasc/Glanbia Monitor Farm Walks will take place throughout March and April.

TEAGASC/GLANBIA MONITOR FARM WALKS MARCH – APRIL 2013

• Four venues nationwide

A series of Teagasc/Glanbia Monitor Farm Walks will take place throughout March and April as part of the Teagasc/Glanbia Joint Programme. All farm walks will take place at 11am.

Topics covered at the events will include the following:

- Fertility and breeding management
- Financial planning
- Update of farm performances

• The dates and locations are:

- Thursday, 21 March: Richard and Dermot Lanigan, Ballinura, Carrick on Suir, Co Tipperary
- Thursday, 4 April: Adrian and Pearce Casey, Faha, Kilmacthomas, Co Waterford.
- Tuesday, 9 April: David French, Raheenvarron, Newbaun, Co Wexford.



- Wednesday, 17 April: David and Peter Farrell, Ringlestown, Kilmessan, Co Meath.

DAIRY CALF TO BEEF OPEN DAY 11 MARCH, 2PM

• Tom & Andy English, Adamstown, Enniscorthy, Co Wexford

A BTAP qualifying Dairy Calf to Beef Open Day will take place on 11 March in Wexford as part of Teagasc/Dawn Meats research project.

Topics covered at this event will include:

- Rearing 220 spring and autumn-born

dairy bull calves.

- Finishing bulls and steers at different ages.
- Making maximum use of grass and sheds.
- Managing high output-high gross margin systems.
- Bull/steer market requirements.

EQUINE EVENTING SEMINAR 19 MARCH, TALBOT HOTEL, CARLOW

Teagasc and Connolly's Red Mills are holding a discussion on the topic of 'Demand Overtaking Supply of the Quality Event Type' in the Talbot Hotel, Carlow on Tuesday, 19 March.

The panel will include: Sally Parkyn; Carol Gee; Harold Lusk; William Micklem; Des Barnwell MRCVS; Teagasc Equine Specialists & Connolly's Red Mills Nutritionists.

- Admission: €10 | Registration: 7.30pm
- Contact Teagasc: Declan McArdle/Wendy Conlon on 087 6831876/087 9879083

Computers – an essential farming tool



*Have computers become as important a farming tool as the tractor? **Thia Hennessy and Brian Moran** of Teagasc's National Farm Survey, review the latest data on ICT usage in Irish farming.*

• How many farmers use computers?

The rate of access to a PC in Irish farm households increased from 40% in 2004 to over 60% in 2011, while the rate of usage for farm business purposes increased from 15% to 33%

An interesting statistic is that, in more than half the households surveyed, it is the spouse or children in the household that carry out the computer related farming tasks.

Approximately 53% of farm households have broadband internet access, compared to 65% of all households in Ireland.

This represents a considerable improvement in broadband internet provision and adoption in rural areas.

• How do we compare internationally?

In 2004 we lagged considerably behind the US in terms of ICT adoption. However, while computer usage in American farming seems to have stabilised in the last 10 years or so, Ireland has almost caught up, with about one third of farmers in both Ireland and the US using computers in their farm businesses.

• Who is embracing technology?

Younger farmers with larger farms or farmers with young adults in the household are all more likely to adopt ICT on their farms. Furthermore, operators of more profitable farms are also more likely to be adopting ICT. There are also significant differences in the rate of ICT adoption depending on the system of farming, although this gap does seem to be closing over time.

ICT usage increased across all farm systems but dairy farmers continue to have the highest usage rates, increasing from 29% in 2004 to almost 60% in 2011.

Although starting from a low base of just 5% in 2004, usage rates have increased the fastest on cattle farms and, in 2011, stood at almost 30%.

• What are computers being used for on farms?

Internet searching and communication are what the computer is most commonly used for on farms, followed by herd registration. Relatively newer online services are now also beginning to feature. About 20% of farm computer users conduct some purchasing activities online, while about 10% are using the computer for sales.

• Continued on page 8-9



farm management

Give it a go

Regardless of your level of experience, there's support available to enhance your computer/internet skills

Mark Moore,
Editor, Today's Farm

“I'd describe myself as a good 60 plus," was a smiling Charlie Armstrong's reply to an impudent question about what age category he fell into. Last year Charlie, who has a suckler herd and farms near Castlebar in Mayo, took part in a Teagasc introduction to computers course delivered by Mary Roache and Alan Nolan.

"We have a computer at home which my sons and daughters were using but my knowledge of computers and the internet was very basic," says Charlie.

"What I liked about the Teagasc course in Castlebar was that it catered for all levels - from someone who has never sat in front of a computer, to people who already have some skills.

"There was a computer in the training room for each person taking part and the tutors, who were excellent, would talk to the class but also go from one person to the next answering their individual queries. Obviously, younger farmers are completely at home with computers and the internet, but I think you can get into it at any age if you have an interest. For me, the biggest advantage is that I can register my calves online, but I also use the computer as a source of information.

"It's natural to be wary or even a bit afraid of doing things differently whatever age you are, but I'd certainly encourage people to give it a go. You could ask a farmer who's using a computer and the internet to show you what he does and, if interested, you should definitely take a course like the one Teagasc offers."

TIPPERARY

Tom Delahunty, a dairy farmer from

Market Hill, Fethard in Tipperary, says his biggest problem is that both his daughters Kate (15) and Rachel (24) are whizzes on the computer and can do chores such as registering calves online with their eyes closed (metaphorically speaking!).

"I did have some basic skills but I recently took part in the Teagasc internet course in Clonmel to build on them and refresh what I have learned. One thing I would say to people considering a course is that it's completely different from what we remember from school days, it's a very friendly atmosphere where people work on an equal basis with the tutor and help each other out.

"Like anything, it's important to use the skills as often as you can. If you only use the home computer now and then, it's hard to retain what you've learned."

The options

"Our computer courses are designed to help farmers incorporate the use of computers into the management of their farm businesses," says Teagasc Tipperary education officer Billy Gleeson, speaking at the computer course in Clonmel.

"Courses are usually held in the evening to facilitate farmers and are available countrywide.

"Courses take place one night a week, for a total of five weeks. Each session lasts for about two and a half hours. The courses are usually run at Teagasc education centres where computers are available for each participant."

There are two options: A basic computer course, and an internet course for farmers.

"If they are beginners, or have limited experience, we urge people to



Participants at a recent computer course in Clonmel. From Simon Delahunty, Michael Phelan (front).

take the basic course first," says Billy. "By building a good foundation you won't discover later that you have gaps in your knowledge."

There is no requirement for participants to choose to take any kind of assessment of their learning on the

• Continued from page 7

Figure 1

Rates of access to and use of computers for farm business in Ireland and the US (percentage of farms)

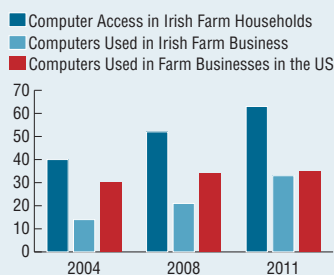


Figure 2

Rates of computer use on Irish farms by main system of farming (percentage of farms)

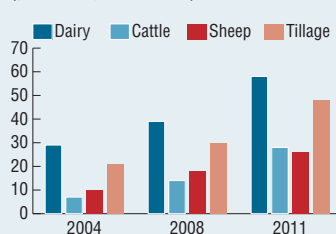
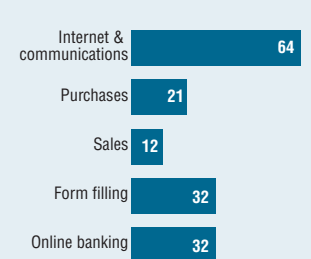


Figure 3

Main farming business purpose for computers in 2011 (percentage)





left: Eamonn Phelan, Marie Casey, Tom Delahunty, Billy Gleeson (course director), Jim Rowan, Lara Costelloe, Michael O'Connell, Natasha Corcoran (Tutor),

courses but you can achieve a 'FETAC specific purpose certificate at level 5.'

"To gain the qualification you have to complete a number of projects and sit a short exam," says Billy Gleeson.

"Some people are keen to do that, and we encourage it, but it's entirely optional."

Teagasc has invested in computer equipment to ensure participants have access to modern technology.

"People can expect not only excellent teaching, but also high speed broadband and modern computers," says Tipperary area unit manager Donal Mullane, regional manager for north and south Tipperary.

Courses cost €159. There are Teagasc education officers around the country so contact them via your local office to find out when the next course is available – Teagasc in Clonmel is starting another course on 6 March.

Broadband availability

In order to make full use of the internet you need access to broadband. This is a rapidly changing picture for rural dwellers as new competitors enter the market and new technologies are introduced.

There are currently several ways to get access to broadband.

Broadband can be delivered by 'line of sight' to your home via a mast in your area and major landscape obstacles, e.g. hills, can sometimes be overcome with the use of a 'deflector' which allows the signal to bypass the 'impediment'.

Secondly, you can get access to the internet via the old telephone

landline network. In some cases, speeds via this route can be unacceptably slow. There is now talk of the ESB offering internet access through the electricity cables, but this plan is at a very early stage yet. The best solution for many rural dwellers is internet delivered from a satellite to a dish on a house or building. Unfortunately, this may be quite an expensive option.

Each person's situation is different and it is essential to research the options. Ironically, the best place to start is often on internet based price comparison websites. See www.bonkers.ie for example.

farm management

Learning from Jack and Eddie

These Mayo pig producers are marketing geniuses

Story and pictures by Mark Moore

Nearly 40 members of the extended O'Malley family assembled after Mass on a Sunday morning in October 2010 at Eddie O'Malley's house about five miles from Westport. This wasn't just a normal family gathering, they had an important task ahead of them.

Children, parents, grandparents, uncles, aunts and cousins were to sample a range of sausages and choose which recipe would become the first product in the Jack and Eddie's range. "We had produced about five types of sausage, each with its own characteristics, and the 'tasters' voted for their favourites," says Eddie O'Malley, a pig producer and the driving force behind a now growing range of sausages, rashers and other pigmeat products.

The O'Malleys have been pig producers for generations and Eddie's parents, Pat and Marian, run a 350-sow unit, finishing half the piglets and selling the rest as weaners.

"Pig prices have never been better but feed prices have never been higher," says Eddie who, along with siblings and uncles is also heavily involved in the family business.

"We've had fantastic support from Teagasc pig advisers going all the way back to 1975 and we believe we are highly efficient but profits have been virtually non-existent in recent years." Eddie identified processing of their pigmeat as a way to add value to their production.

Outsourcing production

Interestingly, the O'Malleys get someone else to make the sausages. This is a clever way to avoid the need for huge investment (Eddie estimates it could cost upwards of €500,000) in production equipment.

"Our own pigmeat is the raw material, and we develop the products and the brand, but we don't have the skills or the facilities to actually make

sausages, so we get Kelly's artisan butchers in Newport to do it."

The Jack and Eddie's brand has spread rapidly along the western seaboard with a number of family members directly involved in the marketing and distribution. Eddie's brothers Noel and Ray are on the road full-time delivering and promoting the products. "They have great enthusiasm," says Eddie. "You need that. Particularly during in-shop tastings which are essential to get people to try something new."

Eddie's cousin, Paul O'Malley, completed a Bord Bia sponsored Masters degree in food marketing at the UCD Smurfit Business School. In return for a share in the business Paul is currently helping market the brand, particularly in Britain. "We've learned a lot over the last couple of years," says Eddie. "It's vital to have an efficient way of getting your products to consumers — we spend a lot of time optimising our distribution. SuperValu, in particular, has helped us get into additional outlets. There's a lot of help out there if you want to develop a brand. Teagasc and Bord Bia are great and nearly everyone in food production or marketing will take time to give you advice."

According to Teagasc, Claremorris, adviser Geraldine Hynes, Eddie has also been generous with his time addressing Options courses for people interested in a diversification initiative. "Jack and Eddie's which is located in the heart of the West is a real inspiration for anyone thinking about an alternative enterprise, and not just in food," she says.

The success of the Jack and Eddie's brand shows that price is not the only factor for consumers. "We decided from the start that we wanted to deliver a high meat content, high-quality product and simply refused to compromise on that," says Eddie.

So, what will happen if pig meat prices recover? "We'll be delighted if that happens," says Eddie. "Pig producers, like ourselves, need a break and I'm confident we'll still be successful with the Jack and Eddie's brand."

CONTACT

If you would like to learn more about JackandEddie's products, visit their website www.jackandeddies.com





Jack and Eddie O'Malley



What Teagasc offers

Through Food Research Centres in Dublin and Cork, Teagasc can provide support and technical assistance to food businesses and startups wishing to develop new and exciting products. Experienced staff can help you take your idea and turn it into a viable food product, (though Teagasc was not involved in the O'Malley's product development).

Teagasc can also assist with recipe development, sourcing suitable ingredients, equipment and packaging and linking you with possible manufacturers for your product. The Teagasc facilities in Ashtown, Dublin and Moorepark, Cork include pilot production plants containing modern equipment for the development of a range of food products including meat, dairy and bakery products. Incubation space is also available for use by small startup food companies.

Well-equipped laboratories are available for microbiological, chemical, physical and sensory testing to help establish the quality and nutritional content of food product developed. Teagasc also provide specialised training in areas such as food safety and compliance with food legislation, as well as practical workshops in butchery skills and cheesemaking.

Teagasc has strong linkages with agencies such as Enterprise Ireland, Bord Bia and Bord Iascaigh Mhara who can also help support the marketing and financial aspects of bringing a food product to market. Ciara McDonagh

If you would like more information, consult the Teagasc website or contact Ciara McDonagh on (01) 8059546 or Pat Daly (01) 8059538



- In March 2012, Teagasc, Bord Bia and Enterprise Ireland combined their resources to launch the inaugural Food Works programme, a new innovative initiative aimed at creating and nurturing global food entrepreneurs.

To date, through a staged process and having filtered through over 300 applications, Food Works has helped 28 potential entrepreneurs undertake detailed feasibility analysis and 11 develop investor ready business plans.

A second Food Works programme will be launched in coming weeks – watch out for further details in March.

farm management

The future of the RURAL ECONOMY

Here's your chance to influence the government's jobs strategy

David Meredith¹
and Laura McManus² Teagasc Rural
Economy Development Programme

Despite recent falls in off-farm employment, 30% of farmers and 43% of their spouses, still have some form of off-farm income. These incomes are critical in supporting the economic viability of the farm household. Off-farm employment opportunities are all the more important given that research by David Meredith in Teagasc's Rural Economy Development Programme showed that a majority of farmers (58%) see limited potential to develop their farm enterprise and only 2% plan on starting a farm diversification enterprise. This research also established that most farmers prefer to combine farm work with an off-farm job.

In the current economic climate, securing off-farm jobs is difficult. Recent research by Teagasc has established that, between 2006 and 2001, the number of people living in rural areas who are unemployed virtually tripled. This compares with a doubling in urban areas. A further concern is the low number of jobs being created in rural areas.

To help tackle these issues, the Commission for the Economic Development of Rural Areas (CEDRA) was established in November 2012. By October 2013, the Commission will have undertaken research and made recommendations which will feed into the current National Jobs Strategy.

The Commission for the Economic Development of Rural Areas Public Meetings – dates and venues

Tralee	Monday 25 February
Letterkenny	Thursday 14 March
Macroom	Wednesday 10 April
Limerick	Thursday 18 April
Carlow	Thursday 25 April
Ballyhaise	Wednesday 2 May



Professor Cathal O'Donoghue and Pat Spillane

The Commission was established by the Minister for the Environment, Community and Local Government, Phil Hogan TD, and is being chaired by Pat Spillane, GAA All-star and commentator.

Teagasc is playing a major role in the Commission through the work of Dr David Meredith who is managing the research programme supporting the Commission's work, and Prof. Cathal O'Donoghue, head of Teagasc's rural economy development programme, who is chief executive of the Commission. Teagasc's input is being supported by nine interns recruited through the government's JobsBridge initiative.

A key part of this work is extensive public consultation with local stakeholders and members of rural communities all over the country. The public consultation phase, began last month with a meeting in Castlebar. A variety of opportunities were highlighted as were practical steps needed to ensure that they are realised. Many of these opportunities aim to add value to existing rural products and services.

John Dillon, a member of the Commission, has stressed the need for the development of entrepreneurship/ leadership training for farmers. The participants in this programme could be the nucleus of an entrepreneur-

ship drive to create rural enterprises.

Pat Spillane, speaking after the Castlebar public meeting, said: "We got a massive response from the people of Co Mayo; they are incredibly passionate people that are ready to work to save their communities.

"Many of the opportunities identified for the region fit into our brief that was set by Minister Hogan to produce solid, practical and workable recommendations in the report."

The Commission received some valuable feedback in Co Mayo, including a suggestion that the Great Western Greenway be used as a model for rural tourism. Opportunities in the wood energy industry were also identified.

The Commission is keen to hear from people all over the country who have ideas about the future economic development of rural areas and is inviting people to get involved by attending a public meeting (see list) or by submitting their ideas. Further information is available by visiting www.ruralireland.ie/index.php/consultation or ringing 091-845297.

¹ Dr David Meredith is based at the Rural Economy Development Programme, Teagasc, Ashtown, Dublin 15.

² Laura McManus is based at CEDRA, Teagasc, Ashtown, Dublin 15.

Single Payment Scheme — what you should know

James McDonnell
Farm management specialist,
Teagasc Rural Economy and
Development Programme

In 2011, on average, direct payments accounted for €17,929 — nearly three-quarters of farm income. The Single Payment Scheme (SPS) is the single most important document you will fill this year.

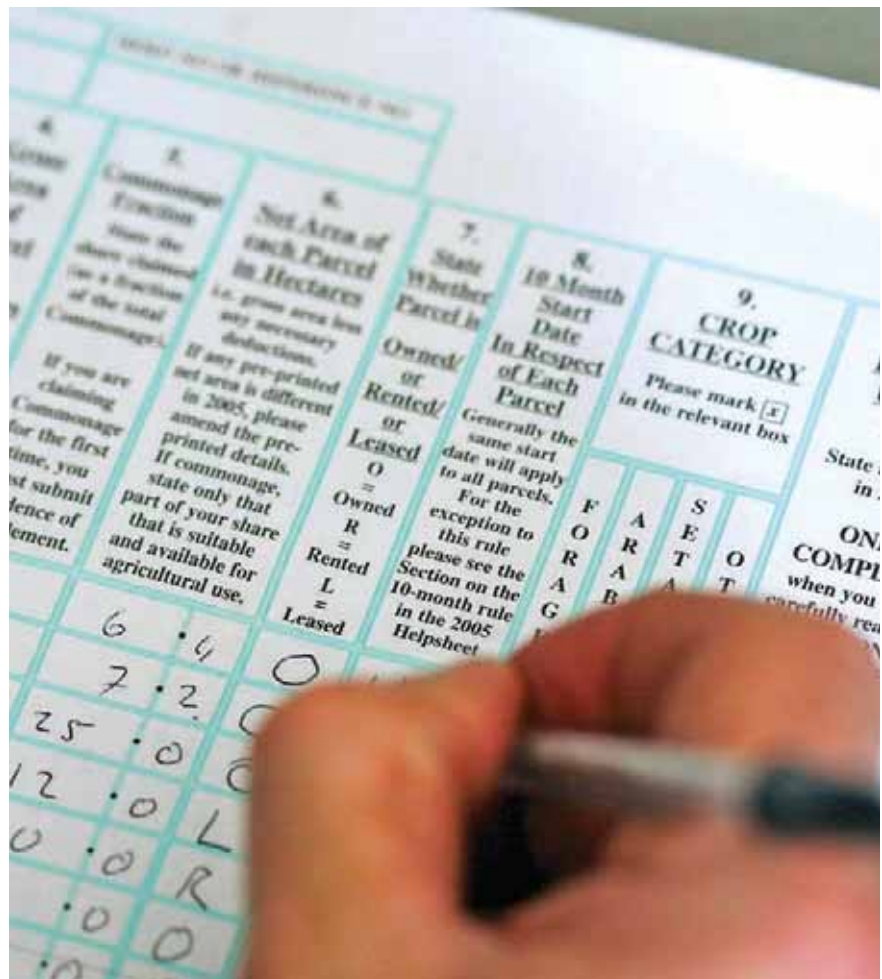
This year, there are slight changes to the application form and also to the terms and conditions. The online application system was opened to farmers and their advisers from 11 February. The Department of Agriculture, Food and the Marine received more than 60 applications on the first day.

All farmers should have received maps and the paper forms should be with farmers at the end of March. The closing date is 15 May 2013; there cannot be any extension to this date. You do not have to wait until you receive a paper form to make an application, because the paper forms received in the post are a copy of the information on the online SPS system.

This year, if you are sending a paper form, it must arrive in Portlaoise by 15 May. Applications will not be accepted at a local DAFM office. An acknowledgment will be either sent by text message (where the DAFM has your mobile number) or letter where there is no mobile number on your file. It is planned to have all acknowledgments sent by June 1st 2013.

Contact Teagasc soon. If you normally get help filling the form at your local Teagasc office, it is important that you make contact with the office soon. There have been some changes in the advisory staff over the last year and it may be the case that you have a new adviser.

For security reasons, you will have signed a form that allowed your original adviser to deal with your application. It may now be necessary for you to sign a new form to authorise Teagasc to complete the application online. If you receive this authorisation form from Teagasc, it is important that you complete it and return it to the local Teagasc office as it will take a little time for the form to be processed before your adviser can get access to your on line information.



This year, if you are sending a paper form, it must arrive in Portlaoise by 15 May.

General information on 2013 scheme

The basic requirements of the 2013 SPS are similar to other years.

You still need one eligible hectare to claim one entitlement. You must declare all the land that you are farming.

The 2013 SPS application also covers 14 other schemes for example: Grassland Sheep Scheme, Beef Technology Adoption Programme and the new Sheep Technology Adoption Programme. Modulation for 2013 will be 10% on payments over €5,000; this is the same as 2012 figure. An additional 4% of modulation is applied to payments in excess of €300,000.

To claim the direct payment under the 2013 SPS, all of the hectares of land declared by you to support your claim (owned, rented-in and leased-in) must be subject to an agricultural activity by you for a period

- From the beginning of the year until after 31 May 2013 or
- For a period before 31 May 2013 to 31 December 2013.
- Land that is declared by an applicant on the basis that it is available to him or her on for the one day, the 31 May only, on foot of an agreement with another party will not be eligible for payment.
- For Disadvantaged Area Payment (DAS) you must have the land for the entire year, or under a normal conacre agreement.

If you are an AEOS participant, you must outline on the back of the form which parcels are participating in the AEOS Scheme by placing a tick in a box. Any parcel with either a linear or area based measure must have the relevant box ticked.

• Continues next page

Specific points

Farm hub

There is a question on the form this year relating to the 'Farm Hub'. The Department of Agriculture would like to know which plot is considered the best place for an inspector to meet the farmer. The farmyard I suppose would generally be considered the 'hub'.

If you do not have a farmyard, it is suggested to pick the plot nearest to the dwelling and put a note to this effect on the form. Please remember that this may have implications for your DAS application also. On the online system you must pick a plot — the system will not allow you to submit the form until you do so.

Land without a parcel number

If you wish to declare a land parcel that does not have an existing Land Parcel Identification (LPIS) number, or has not been claimed for several years, you will be required in due course to submit evidence (Land Registry Folio, and/or lease/rental agreement) which confirms you are entitled to use the parcel in question.

Maps

At this stage, you should have received new maps showing the land parcels declared in the 2012 application. It is vital to review these maps. If there is an ineligible area included in the parcel that has not already been 'red lined', then you must submit an amended map to take this out. This may be the site of a house or a farm building or roadway. There may be red lines delineating these structures on the maps you will receive. These red line areas need to be checked and maps adjusted as necessary.

This year, there will be three ways to submit a map.

1. By post
2. Uploading an electronic PDF file (map) on the SPS online system
3. On the Department's SPS online mapping system

The SPS online mapping system the Department of Agriculture use for the processing of SFP applications has been upgraded this year. Extra controls enable the user to edit a plot after it is drawn on the system.

This new system speeded up the

“ The basics of the 2013 SPS are still the same. You need one eligible hectare to claim one entitlement



processing of map digitisation significantly last year, so where there are map changes, it is advisable to complete this process online.

Consolidation

The rules for consolidation have not changed for this year. You can consolidate your entitlements down to all of your owned land and at least 50% of the area that you farmed in the reference years if you:

- Have lost land that you had rented or leased in the reference years.
- Have lost land due to a compulsory purchase order.

You cannot consolidate because of planting grant aided forestry for the years 2009 onwards as land that was planted in these years can be counted as an eligible crop to draw down entitlements in its own right provided:

- The parcel was declared in 2008 by a recipient of 2008 SPS.
- The applicant must retain 10% of the lands declared in 2008 in an agricultural activity with a minimum of

3ha of farming activity.

- The SPS applicant must also be drawing down the forestry payment.

Disadvantaged Areas Scheme (DAS)

The 2013 SFP form is also used to apply for the DAS 2013 scheme. Unfortunately, the terms and conditions of the have not been finalised at the time of going to press. They are expected to be finalised prior to posting the paper form and terms and conditions booklet.

The rules are expected to be similar to last year, in that the stocking rate for 2011 will again count for eligibility for payment (i.e. you must have had a stocking rate of 0.3LU/ha for three months). If you did not have this stocking rate in 2011, then you are not eligible for the 2013 DAS scheme.

In 2013, you must have a minimum stocking rate of 0.15LU/ha for a continuous six months (this may be increased to seven months), additionally you must have an average stocking rate of 0.15LU for the full year.



The 2013 SPS application also covers 14 other schemes, such as the Grassland Sheep Scheme.



Points to remember

- **Usage of entitlements:** Each entitlement must be used once in every two-year period, otherwise any unused entitlements will be lost to the National Reserve. This is particularly important if you have leased out entitlements — these need to be used by the person who is leasing your land.
- **Check the date that the transfer period runs to:** This transfer document may need to be completed again this year and remember that you can only lease out an entitlement with 1ha of eligible ground.
- **If you have entitlements of different values you need to check that they are all being claimed once every two years.** The Department will automatically pay higher value entitlements first and the lower value entitlements may not be

rotated. If this is the case, they will get lost to the national reserve.

- **Use the Payment Order form to select the lower value entitlements for payment first.** This will keep the entitlements active but will result in a lower SPS Cheque for 2013. Alternatively, you may choose to sell these entitlements if you do not have enough land to claim them.

- **When you are reviewing your will, make sure that the entitlements are mentioned.** If not, they are included in the 'residue' of the will and may not go to the person whom you had intended to get them. They do not automatically go with the land.

- **If this is the first time for your adviser to deal with your SPS application, then allow extra time to get the job done.** It is important

that you bring in the most recent maps for all of your land and any land that you may be renting.

These maps must be examined carefully; any ineligible areas excluded and amended maps returned to the Single Payment Unit. It is also important to bring in a copy of last year's application and previous applications if they are available.

You should contact your adviser early and keep your appointment so that the job can be done in an organised fashion and reduce stress for you and the adviser.

Finally, remember to post the form if you are completing it on paper and keep your swift post receipt in a safe place. If using the online system, make sure that it is fully submitted before the closing date of 15 May 2013.

dairying

Getting the most out of discussion groups

Tom O'Dwyer,
Head of Dairy Knowledge Transfer

A discussion group is a great way to learn, to openly discuss farming issues and to keep up-to-date with new technologies. Teagasc facilitates almost 700 discussion groups, including 350 dairy discussion groups. So, the chances are that there is one in your local area.

In 2012, Teagasc commissioned an independent evaluation of dairy discussion groups. This evaluation was conducted by Dr. Pat Bogue of Broadmore Research. This decision was taken due to the growth in dairy discussion group numbers (encouraged by DEP) and the increased importance of groups in the delivery of the Teagasc dairy programme.

The objectives of the evaluation were two-fold:

- To determine the effect of group membership on physical performance (solids production/ha for example), practice adoption (whether new ideas were put in place on farms) and, ultimately, financial performance;

- To obtain feedback from discussion group members and make recommendations on how to improve discussion groups.

While the evaluation was conducted

with dairy discussion groups, Teagasc believes that the findings and recommendations are relevant to discussion groups for all enterprises.

The key findings from the evaluation are outlined below:

- Group members are up to 20% more likely to adopt new technologies and best management practices, leading to improved technical performance on their farms. Discussion groups are an effective approach for the delivery of advice and information leading to improved management and efficiency.

- This improved performance translates into greater profit worth €247 per hectare (2c to 3c/litre) in additional gross margin for established group members.

This is as a result of improved milk production and milk solids sales, improved milk quality, reduced concentrate usage and an increased percentage of cows calved in the January to March period.

The improved financial performance takes time to realise — benefits really accrue to 'longer term' members of discussion groups.

- Over 400 group members were asked to express their overall satisfaction with the running of groups (91% were satisfied); the level of group



member participation (85% were satisfied); and the outcome from group meetings (89% were satisfied).

- The motivation to join a discussion group stems from a hunger for knowledge and the desire to seek support from other farmers when trying new practices.

- Existing Teagasc discussion groups are exhibiting a high dependence on their Teagasc facilitator. While this model can work, there is a greater potential for increased member 'ownership' of group activities. This could lead to improved group, and individual farmer, performance.

- The overall conclusion by report author, Pat Bogue, was that 'groups are working, delivering for farmers and advisers but need care and attention for their long-term development'.

Teagasc has identified best practice 'guidelines' for the operation of discussion groups; it is our experience that groups adopting these guidelines tend to perform more effectively.

The role of the facilitator is central to the effective functioning of a discussion group. A good facilitator will be well prepared and during the meeting will: prompt quiet members to contribute through questioning; prevent over-talkative members from dominating the discussion; challenge farmers' views if not challenged by others; guide and control the meeting through questioning; present technical data and research findings; and summarise the meeting.

Following the meeting, the facilitator will check that recommendations have been understood by the host

Table 1: Percentage of farms achieving Teagasc roadmap targets — early, new and non-group members

	Group members			All farms
	Early	New	Non	
Milk yield per cow: ≥ 5,200 litres	56	54	42	48
Milk solids per cow: ≥ 378kg	53	49	37	44
Protein content: ≥3.4%	54	37	35	41
Fat content: ≥ 3.95%	36	33	27	31
Somatic cell count: ≤ 200,000 cells/ml	52	55	23	37
Concentrate feed per cow: ≤750kg per cow	57	41	39	45

Source: National Farm Survey, 2011.

Dairy Discussion Group Competition 2013



The Cloughdub dairy discussion group with teagasc advisers Liz Duffy and Seamus Lordan

On 12 February, ACCBank, ICBF, Teagasc and the *Irish Farmers Journal* announced the opening of the Dairy Discussion Group Competition 2013.

The competition, now in its second year, was launched with the objective of stimulating discussion among dairy discussion group members; and to encourage dairy discussion groups to develop profit or lifestyle based innovations for widespread farm adoption.

The competition, with an ACCBank-sponsored fund of up to €20,000, will encourage and reward dairy discussion groups who engage in a group project in 2013. The competition is open to all dairy discussion groups.

Submissions in 2013 will be accepted in the areas of new

process development, tailored training/knowledge transfer project, group adoption of research proven practice, software development, study trips or other innovative projects.

Last year's projects covered topics ranging from health and safety, genomic testing for female fertility, labour efficiency and stress in the farming community.

Brendan McGarry, of the winning West Offaly Discussion Group, said: "Our discussion group benefited hugely from participating in the competition. Apart from delivering the actual project, it gave us a great focus and definitely improved the bond between members of our group, as well as providing some unexpected benefits, such as improving our IT skills."

farmer and other group members.

Other 'guidelines' include:

- The optimum number of members to ensure best levels of group interaction is 12 to 15 farmers (groups of greater than 20 people should be avoided);
- Every discussion group should have a chairman whose role is to help the facilitator to drive, motivate and control the group;
- A group must identify what it wants to achieve for the year ahead and prepare an annual programme which identifies the topics to be addressed and one overall group project;
- Each group should agree a number of simple 'ground rules' e.g. attendance, completion of Profit Monitor; membership of HerdPlus;
- Ideally, group meetings should take place monthly, with a minimum of eight meetings held annually;
- The host farmer should make available summary information in respect of the whole farm and detailed information in respect of the topic being discussed — this makes for a more informed discussion;
- Recommendations should be made at the end of each meeting — for the host farmer and/ or the group; and
- Progress on the implementation of recommendations should be checked at subsequent meetings. As part of our response to the independent evaluation, Teagasc will seek to continuously enhance our advisers' facilitation skills and to ensure that the best practice 'guidelines' listed above are adopted by all discussion groups.



The facilitator will check that recommendations have been understood by the host farmer and other group members

Repairing damaged pasture

Many paddocks were badly damaged by poaching or machinery in 2012. This damage, unless repaired, could reduce grass dry matter production over the coming season

John Maher, B&T adviser, and Michael O'Donovan, Animal and Grassland Research and Innovation Programme, Teagasc Moorepark

Most of the open spaces created by last season's damage will be invaded by weed grasses and/or broadleaf weeds. As a result, some fields may need to be completely reseeded or part of the field may need reseeding. However, on some farms, these paddocks cannot be done without, within the grazing rotation, or cashflow will not allow for them to be reseeded this year.

The bottom line, though, is that repair is essential to ensure good pasture production. Teagasc Moorepark research has shown that permanent pasture with low levels of perennial ryegrass produces considerably less

grass and responds much less well to fertilizer. To put figures on it, a low proportion of perennial ryegrass in the sward could cost an intensive farmer up to €300/ha/year.

So, this presents the question — is it possible that overseeding of these swards in spring could help increase perennial ryegrass content? Overseeding can be used as a short-term alternative to full reseeding but success can be somewhat variable (similar to clover overseeding). It probably should be only considered where the farmer can carry out the tractor work himself, minimising the cost of carrying out the operation.

Overseeding

If overseeding is being considered,

its success depends on getting as much seed in contact with the soil as possible and having moist conditions post germination. Using a tetraploid (which will generally have bigger seed) grass variety at a seeding rate of 6kg to 8kg/acre should be considered.

The more open the pasture, the more likely that overseeding will be successful.

As stated, the most important part of overseeding is that there is direct seed to soil contact. This point cannot be stressed enough.

The best time for overseeding is late April/early May or mid-summer (after silage cuts).

However, this may not be possible on all farms. After overseeding, ensure the paddock is grazed at light covers for the remainder of the year. It will only be on the third or fourth rotation that the new plants will start making a contribution to the sward.



Repair is essential to ensure good pasture production, as pictured.



OVERSEEDING

Method 1: Grass harrow/light cultivation

Ensure the pasture is grazed off well, clean to the base. Grass harrow the pasture ensuring a levelling of the divots/clods (one to two bags/ac) and disturbing some of the soil surface.

Spread grass seed (6kg to 8kg/ac) with the fertilizer spreader. Then spread compound fertilizer (one or two bags/acre) such as 18:6:12 or 10:10:20. Phosphorus (P), in particular, is necessary for good establishment. Roll the pasture with a Cambridge roller (if available) or light roller. Spread a light coating of slurry (1,000 to 1,500 gallons/acre). Ensure that the pasture is grazed frequently thereafter.

Don't expect to see major differences within the pasture instantly. It will take a period of time for the new seeds to establish, but ensure that the pasture is grazed at light covers throughout the season to assist seedling germination and tillering.

It is advisable to use a tetraploid variety as tetraploid seed size is much larger than diploids. Overseeding will not work if seeding is followed by dry conditions. If this happens, continue to spread light levels of slurry (1,000 to 1,500 gallons/acre) or soiled water after grazing. These swards may require a post emergence spraying upon establishment if weeds are a problem.

Method 2: Guttler/Stitching-In Machines

Graze off pasture as tight as possible (to 3.5cm). If this is not possible, mow pasture down as tight to this height as possible.

Use a Guttler or stitch-in type seeder across the pasture — 6kg to 8kg/ac of grass seed. Spread a compound type fertilizer (one to two bags per acre) of either 18:6:12 or 10:10:20. Roll the pasture with a Cambridge or other light ring roller. Apply a light coating of slurry (1,000 to 1,500 gallons/acre). These swards may require post emergence spraying upon establishment.

Ensure frequent grazing thereafter until new seedlings have emerged. Graze with lighter stock, if possible, as this will help seed establishment.

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CROSSBREEDING

Key questions, clear answers

Q&A

Today's Farm interviewed Dr Frank Buckley of the Teagasc Animal and Grassland Research and Innovation Programme, Moorepark, on this crucial topic

1 Frank, you have accumulated a number of years' results from the various crossbreeding studies. What are the key findings?

Together with evidence from overseas, our results strongly suggest that the Jersey or Norwegian Red crossbred is very suitable to an Irish grass-based spring milk production system.

As well as their ability to maintain or increase production, both crossbreeds (Norwegian Red and Jersey) have brought about significantly improved fertility compared with black and whites. Greater survival together and minimal calving slippage are key to profitability.

Crossbreeds are also better able to maintain body condition, most noticeable pre-calving and at drying-off. I consider this a good indicator of robustness and an added measure of compatibility with our grass-based system.

The priority issue Irish dairy farmers need to address in order to improve efficiency of production is to breed a fertile robust cow, which will maximise grazed grass during a long grazing season. I very strongly believe that this will be achieved most effectively by crossbreeding.

2 Jersey crossbred cows at Ballydague produced on average 17kg/cow more milk solids per lactation compared with the Holstein-Friesian cows. Can Irish farmers expect to repeat this performance?

The extra 17kg in milk solids was the average difference over the five years of the study. In latter years, when the herds were mature, i.e. 27%

first calvers, 20% second calvers and the remainder as mature cows, we achieved 480kg milk solids per cow or over 1,300kg milk solids per hectare with the Jersey crossbreeds, feeding approximately 300kg of concentrates.

Across 50 commercial dairy herds, the Norwegian Red crossbreeds had similar production levels to their Holstein-Friesians contemporaries.

A critical point that may not be appreciated is that these differences/similarities between crossbreeds and black and whites were based on a similar age profile being maintained across all of the breed groups at Ballydague.

There was a massive difference in reproductive performance between the crossbreeds and the black and whites.

If we were to take into account in the greater survival and less slippage in calving date with the crossbreeds, and assume a scenario where each breed group is allowed to mature, the productivity difference between the two-breed groups would be substantially greater.

3 What are the implications for profitability at farm level?

When we simulate the differences in performance e.g. milk yield, milk composition, liveweight differences (reflect its influence on energy demand but also cull cow value), fertility performance, survival, male calf value etc, at current prices i.e. for both milk and beef, we estimate that the crossbred cows will conservatively generate €130 more profit per cow per lactation compared with their black and white counterparts.

In the case of the Norwegian Red



Mayo farmers Danny and Jarlath Walsh with Teagasc adviser profile on page 23.

crosses, this increase in profit is driven primarily by their superior reproductive efficiency. With the Jersey crossbreeds a key driver, in addition to the reproductive efficiency, is their unique productivity and higher milk price.

At current market value, the lower beef merit of Jersey genetics largely cancels this out. For example, at 2008 beef and calf prices, the Jersey crossbred performance was equivalent to over €180 per cow per lactation. These are massive gains in profit generating potential.

4 The benefits to crossbreeding seem enormous. Does national data confirm this?

ICBF has analysed data from 6,000 lactation records on commercial dairy



Peter Comer and one of their crossbred calves. See detailed

5 What do you say to those who say that, in their experience, their neighbours who have been using Jersey genetics and crossbreeding for years are not achieving these per-cow milk production performance levels?

The first point is to have well-grown, well-developed cows. Heifer management is key. Based on Moorepark research, the target weight for typical Holstein-Friesian heifers at mating is 330kg. For a Jersey×Holstein-Friesian, the target should be 295kg to 300kg. Pre-calving, the Holstein-Friesian needs to be 550kg and Jersey crossbreds 490kg. Target weights for Norwegian Red×Holstein-Friesian heifers are the same as for the Holstein-Friesian. Throughout the grazing season, we aim to graze covers of about 1,400kg DM per ha.

Secondly, many mistakenly assume that because Jersey×Holstein-Friesian cows are 60kg to 80kg (approximately 15% lighter) compared with Holstein-Friesians, it is possible to carry 10% to 15% more of them per unit area.

This is incorrect because: 1) Jersey crossbred cows have a higher intake capacity per unit liveweight than the black and white, a trait inherited from the Jersey. The result is the potential to produce more solids per unit live

weight. Results from Ballydague show the Holstein-Friesian are capable of consuming 3.4% of body weight per day. Values for the Jersey crossbred are 3.7% and pure Jersey cows 4%.

There will be more mature cows in the herd. For example, a first lactation cow will produce about 75% of that of a mature cow, similarly she will consume 25% less. This suggests a 2% increase in stocking rate may be justified with Jersey cross cows, but certainly not 15%! But this 2% increase in cow numbers should result in up to 10% higher output of milk solids.

6 Some foreign Jersey/Norwegian Red bulls look to have low EBI values and many also have very low reliability values. What merit do you put on these EBIs?

Taking reliability into account, EBI (and where appropriate its sub-indices) should drive sire selection decisions.

The ICBF Active Bull list contains many Jersey and some Norwegian Red bulls (bear in mind not many Norwegian Red bulls available in Ireland).

Because Jersey and Norwegian Red genetics are the minority in Ireland, it poses additional challenges to ICBF to provide reliable estimates of EBI for some sires.

• Continues next page



A critical point that may not be appreciated is that the differences/similarities between crossbreds and black and whites were based on a similar age profile being maintained across all of the breed groups at Ballydague.

herds that had a mixture of dairy breeds.

The analysis clearly indicated a potential benefit from cross-breeding, in excess of €100/lactation.

In other words, the performance of the first cross will deliver (on average) more than €100 per lactation over and above that explained by the animal's EBI.

The advantage from crossbreeding is likely to be most substantial where the EBI, or more specifically the EBI fertility sub-index, is low. However, farmers will benefit from hybrid vigour even with high EBI herds.

That is the basis for crossbreeding in New Zealand, use the best bulls (highest BW) from both breeds and also benefit from the added bonus that is hybrid vigour.

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• From page 13

Many will have breeding values with very low reliability.

As with using young, genomically selected, Holstein-Friesian bulls my recommendation is to use a team of four or five. Many of the Jersey and Norwegian sires available are daughter-proven in their country of origin. For added assurance, consider consulting the breeding values from the country of origin.

7 Is the extra profit (Hybrid Vigour) per lactation included in the EBI?

No. The contribution of hybrid vigour (sometimes referred to as Heterosis) to the future profit potential of the dairy cow is not included because it is the consequence of crossbreeding two breeds. Now that crossbreeding is increasing in popularity, there is a growing demand for what might be called a 'Production' or 'Cow' index that would take into account issues such as the level of heterozygosity (the level of 'crossbredness') of individual cows.

This would be akin to the Production Worth (PW) as opposed to the Breeding Worth (BW) in New Zealand. It is an index specific to females. Teagasc and ICBF is currently working to deliver this new index and anticipate its launch next autumn. The EBI incidentally would still be used to identify superior sires across breeds.

When selecting non-Holstein-Friesian sires, the most important thing to remember is that you continue to use high EBI sires. Based on the research findings, using a Jersey AI sire with an EBI of €200 will result in progeny with an increased profit per lactation of €300 (i.e., €200 from the direct genetic effect, plus another €100 from hybrid vigour).

Similarly, using a Jersey sire with an EBI of €100 will only return an additional profit of €200, which is less than many of the top Holstein-Friesian sires. This fact must be borne in mind

— otherwise the benefits of crossbreeding will be reduced by the use of inferior sires.

Remember, also, that the heterosis effect (€100/lactation) does not get 'passed on' to the next generation, but will be reduced by up to 50% after generation one, depending on the strategy taken thereafter.

8 All of your research to date deals with the F1, the first cross. Have you considered what farmers should do then?

First crosses tick all the boxes: display full hybrid vigour, productive, fertile and tend to be uniform in appearance (colour, size etc). For traits displaying a lot of hybrid vigour, e.g. fertility and longevity, subsequent generation performance may decline, depending to varying extents on the additive genetic contribution of the follow-on sires selected.

Any crossbreeding strategy should be viewed as a long term proposition. The three most common strategies for creating replacement animals via crossbreeding are:

1) Two-way crossbreeding: This means mating the F1 cow to a sire of one of the parent breeds used initially. In the short term, Hybrid Vigour (HV) will be reduced, over time it settles down at 66.6%.

2) Three way crossing: Use a high EBI sire of a third breed. When the F1 cow is mated to a sire of a third breed Hybrid Vigour is maintained at 100%. However, with the reintroduction of sires from the same three breeds again in subsequent generations the HV levels out at 85.7%.

3) Synthetic crossing: This involves the use of F1 or crossbred bulls. In the long term a new (synthetic) breed is produced. HV in this strategy is reduced to 50% initially and is reduced gradually with time.

Both two and three-breed systems are simple to manage, even in very large herds, by placing a different co-

lour ear tag in offspring of different sire breeds. The tag will indicate the breed of service sire for the animal's lifetime.

For instance, animals sired by Holstein bulls would always be bred to Jersey bulls. Those animals would always be bred to Holstein-Friesian (two way strategy) or, for example, Norwegian Red sires (three way strategy) etc.

When established, herds with such a program would have all three crosses, but decisions regarding service sire can be driven by the simple ear tagging system.

9 Will crossbreds have a different temperament and a be 'dolly mixture' of shapes, sizes and colours?

There is little evidence that crossbreds are any more or less temperamental than straight Holstein-Friesians. Like Holstein-Friesians there will be variation in the daughters of various bulls.

Appearance depends on what breed is used on the Holstein-Friesian herd and whether or not a two-breed or three-breed rotational crossbreeding systems is applied.

Norwegian Red x Holstein-Friesian cows tend to resemble Holstein-Friesians in many respects and so are less conspicuous. The typical Jersey crossbred on the other hand will tend to be a solid black or dark brown colour and somewhat smaller (60kg to 80kg). Subsequent generations will tend to be intermediate and pretty uniform in shape and stature, etc.

The greatest issue I believe lies with the fact that Jersey crossbreds are smaller, so have more room in some parlour designs, potentially posing a greater challenge during the 'training to parlour' period.

10 What do you say to guys who will not crossbreed because of issues, such as male calf value or cull cow value?

The benefits of crossbreeding: increased production efficiency, easy care cows, poor fertility being a thing of the past, far out way the lower male calf/cull cow value. If crossbreeding with the Jersey, low male calf and cull cow value are part and parcel of the first cross, less of an issue thereafter though.

Because of greater survival in the herd, farmers will have more replacements for expansion or for sale, both much more lucrative outcomes.

The Norwegian cross offers an alternative for many, who wish to obtain the positives of improved fertility/udder health/overall robustness without having to deal with the reduced male calf or cull cow values.



Norwegian Red crosses at a dairy sale at Corrin Mart.



Jarlath and Danny Walsh, who farm at Carrownamallaght near Knock, milking around 100 cows, are gradually phasing out their pedigree black and white cows in favour of cross breeds.

Crossbreds a perfect match in Mayo

This father and son partnership is phasing out pedigree Holstein/Friesians in favour of a three-breed strategy. Mark Moore and Peter Comer report.

Jarlath and Danny Walsh, who farm at Carrownamallaght near Knock, and milk around 100 cows, are gradually phasing out their pedigree black and white cows in favour of cross breeds. With annual rainfall of well over 1,000mm and land prone to poaching, they were looking for lighter cows; fertility was also a key part of their decision.

"We've found that it's easier to get crossbreds to calf at two years' old," says Jarlath. "And crossbred cows come back into heat quicker. Our aim is to have all cows calved by the end of March."

Danny is qualified to carry out AI and monitors the fertility statistics very closely. "We still have 61 black and white cows of whom 13 are not in calf. There are 40 crossbred cows and only three of them are not in calf."

"Our pedigree status was of little benefit to us because we had to cull a large number of cows each year due to poor fertility. This meant that we never had a great surplus of heifers to sell. Because we are culling fewer

Table 1: Key facts from the Walsh farm

	Combined fat and protein
Crossbreds	8.47%
Holstein/Friesian	7.03%
Total solids production on the milking platform in 2012: 1,378kg/ha.	

cows, the somewhat lower value of the cull-cow is not so important." They admit that their location in an area with relatively few dairy farmers means that there is also better demand for male calves than there might be elsewhere.

"Jarlath and Danny are constantly seeking to optimise all aspects of their business," says their Teagasc adviser Peter Comer.

"For example, they set up a Milk Production Partnership and are constantly seek new ways to improve their profitability. A key part of that is moving to a lower cost system largely based on grazed grass. That's what's driving their breeding strategy."

"We first saw crossbreeding on a large scale at Teagasc, Ballyhaise," says Jarlath. "Some people thought we were mad to give up a pedigree herd, but the figures speak for themselves. At the moment, we have both pedigree Holsteins and crossbreds in the herd and the crossbreds are doing better in

terms of solids and fertility. And you have to bear in mind that the pedigree cows remaining are the better ones because the poorer performers are long gone."

Connacht Gold pioneered the A+B-C payment formula and this also benefits crossbreds. Stocking rate is currently over three cows/hectare on the milking platform. The two partners installed a 16-unit side by side, baling, parlour two years ago. "We didn't go for a herringbone parlour as this would have been a problem with the cows being different sizes," says Danny.

According to Peter Comer, the Walsh's have an optimal breeding strategy. "Jarlath and Danny are fully committed to cross breeding and, after careful thought, adopted a three breed strategy including Holstein/Friesian, Jersey and Norwegian Red," says Peter.

"The heifer calf pictured is a good example. Her mother was half Holstein/Friesian and half Jersey. Her father is a Norwegian Red. She will be bred back to a Holstein/Friesian."

"The crossbreds have delivered our key requirements," says Jarlath. "Much better fertility, and an easier to manage animal. The higher percentage solids is a bonus. The crossbreds seem to be much less finicky and more robust. That was particularly clear in the wet miserable conditions in 2012."



**BUSINESS, ENVIRONMENT
TECHNOLOGY through TRAINING
EXTENSION RESEARCH**

This farmer aims to maintain his exceptionally good breeding statistics while increasing suckler cow numbers and output

Alan Dillon, BETTER Farm adviser, Teagasc, Moorepark

BETTER farms are beginning to implement the potential changes identified for their farms in the three-year farm planning process conducted by the BETTER Farm Management team with the farmers late last year.

David Walsh farms 43 hectares close to Newcastle, south of Clonmel, Co Tipperary. While it is a heavy soil type but fairly dry, its 900 feet elevation means grass growth can be somewhat slower to get going in spring. The thrust of David's farm plan is to increase output on the farm.

In 2011, the farm was stocked at a relatively low 1.22 LU/ha though this increased slightly to 1.33 LU/ha in 2012. The plan for the next three years is to get the farm stocking rate up to at least 2 LU/ha with a resulting gross margin of €1,000/ha+.

The farm system in 2012 was to run an average of 36 cows with male progeny castrated at six months of age and sold as steers at

12 to 13 months.



Heifers were sold off grass at 18 months of age or finished off grass at 20 months of age. Replacements were sourced as calves from local dairy herds and reared; Limousin being the favoured breed. "Limousin heifer calves from the dairy herd have been harder to get over the past number of years due to dairymen crossing with dairy stock in a bid to increase replacement numbers," says David.

"So, I've begun to source more traditional breeds such as Angus and Hereford crosses from the dairy herd as replacements."

He has now sourced more Limousin calves from the dairy herd this year for breeding heifers but had been buying some Angus and Hereford for the last two years due to a shortage of Limousin. With costs running at 52% of gross output, David has that side of the business under control. However, to make a significant net margin on his farm excluding subsidies he must increase his output significantly.

Farm plan

"Doing the Teagasc Profit Monitor

MAIN PICTURE: Alan Dillon, David Walsh and Meadhbh Freaney.

helped us to identify where the opportunities to increase profitability were," says David.

Cow type is generally good on the farm with David's Limousin and traditional breed cross cows producing plenty of milk and exhibiting excellent fertility. David's calving interval is extremely impressive at 342 days in 2012. Calving begins early, around 10 January, and finishes around the end of March.

Mortality figures are extremely impressive too with 1.08 calves per cow achieved in 2012.

Spring 2012-born stock were weighed at weaning and at housing. Bulls averaged 1.22kg/day up to weaning and heifers averaged 1.15kg/day up to weaning. The second weighing carried out in November showed a gain of an average of 0.68kg/day between weaning and housing, despite weanlings being fed top quality grass along with 2kg/day of a high protein weaning ration.

This demonstrated that most of the weight gain was coming from the cows having so much milk. The Limousin stock bull's maternal and terminal traits were examined on ICBF and it showed him to be of low genetic merit on terminal traits, such as carcase weight and carcase confor-



Table 1: Teagasc/Irish Farmers Journal BETTER Farm programme — farm plan

Farm plan summary		
Measure	Current 2013	Target 2016
PHYSICAL SYSTEM		
	Suckling To Store	Suckling to finish/ heifers sold for breeding/stores
Stocking rate (LU/ha)	1.33	2.1
Land base (adj. ha)	43	43
Cows calving	36	54
Calving spread – spring	36	54
Autumn		
Purchases	Stock bull, Limousin/traditional breed dairy cross calves for replacements	15 Limousin/Friesian cross calves for replacements
Trading system (weanling, store, finish, etc): Suckler calf to store calf to store/finishing bulls/heifers		
Male progeny – spring-born	Sold as 12 month old steers	Sold as 16-month-old finished bulls
Female progeny – Spring-born	Sold as stores	Sold as bulling heifers/stores at 15 months. Culls finished on farm
Autumn-born		
Liveweight output (kg/ha)	496kg/ha	958 kg/ha
Financial system		
Output value (€/ha)	€1,116/ha	€2,016/ha
Variable costs (% of output)	52%	50%
Gross margin (€/ha)	€536/ha	€1008/ha

mation, as well as docility.

“We decided to cull the stock bull and replace him with a five-star Limousin stock bull for terminal traits,” says David. “With the increase in cow numbers and taking into account that I’ll be running up to 15 purchased replacement heifers to put in calf after discussion with the team I decided to purchase two stock bulls.”

David purchased two sons of the Limousin bull Sympa to run with his cows and heifers. Both bulls are five stars for terminal and maternal traits. They are easy calving, have excellent carcass weight and confirmation and are docile.

The fact that they tend to keep milk in the herd means that David will have the option in a few years to keep some of the stock as replacements or sell as bulling heifers, depending on his own herd requirements. David constructed a new slatted shed over an old open slurry tank in 2012 to allow for additional feed space. This will allow him to increase the herd to 54 cows. As this is a reasonably dry

farm, early turnout can be achieved most years and this will be key to keeping costs under control.

Early spring grass in the diet of the cow has enough energy to produce enough milk for the calf and allow her to come back in heat.

Along with the cow accommodation there is a four-bay slatted shed located in the top yard on the farm. This can accommodate all the weanlings plus purchased replacements.

To further increase output on the farm, David is looking into finishing bulls at 16 months. This will make greater use of his sheds while driving up liveweight output.

Grassland management

To improve David’s profitability at the increased stocking rates, greater efforts must be made to improve the amount of grass in the diet. This means having a greater number of paddocks on the farm and being more flexible when it comes to paddock sizes.

A map was planned out showing

where paddocks are to be divided and extra water troughs and existing water troughs should be situated. Location of the water troughs will have the biggest bearing on how many grazing divisions a field may have.

“With two groups of cows including replacement heifers, yearling bulls and heifers and young calves purchased for replacements, there may be up to five groups of stock grazing at any one time,” says David.

“Taking an average of roughly six paddocks needed per grazing group, this means that the farm will need up to 30 paddocks available to grazing stock.

“We soil tested to find any P, K and lime deficiencies on the farm. Some paddocks were badly damaged in 2012 and this will have to be rectified possibly through sub soiling/mole ploughing and reseeding. We’re targeting underperforming paddocks with a low amount of ryegrasses in the sward or high weed infestations which will be targeted for reseeding over the period of the plan.”

A TEAGASC/IRISH FARMERS JOURNAL INITIATIVE, SUPPORTED BY INDUSTRY SPONSORS:



drystock

MAIZE SILAGE

– risk and reward

The crop has had two awful years but should not be written off

Eoghan Finneran & Paul Crosson,
Teagasc Agricultural Grassland & Innovation Programme, Grange.

In the wake of two poor growing seasons in 2011 and 2012, many growers are re-assessing the risks and rewards of growing maize as a forage crop. Given the continuing increases in fuel, fertilizer and plastic costs it is important for every farmer to calculate what winter feed is costing on his or her own farm.

Input and machinery costs of €1,600 per ha (including plastic mulch) are common and can only be justified by achieving a mature, high yielding maize crop with a very good proportion of total dry matter (DM) present in the cob fraction, in the form of starch. As for grass silage, minimal storage and feed-out losses are also key to the financial success of maize as a forage crop.

Late spring frosts, wet, cool and dull summers and poor weather at tasseling combined to severely curtail yields and cob maturity on many farms in 2011 and 2012. Analysis at Teagasc, Grange, has quantified

the effects of weather-related yield fluctuations on feed crop cost for maize. This analysis was conducted using the Grange Feed Costing Model (GFCM), which enables home-grown feeds to be compared with bought-in alternatives and has also been extensively used to examine management and market effects on feed crop cost.

Comparing feed crop values and costs

The analysis compares feed crop cost per hectare or on a dry matter (DM) or energy basis. The units of net energy used are UFL (net energy (NE) for milk) and UFV (NE for meat).

One thousand UFL is equivalent to the net energy for milk production in one tonne of dried rolled barley. Because the primary objective of live-stock farming is to produce meat or milk, the fairest comparison between feeds is to compare full feed costs per unit of net energy for meat or milk production.

Feed cost in this analysis was calculated by including all fixed and variable costs associated with growing and feeding maize silage. A €300/ha land charge was also included. Contractor charges were assumed for all operations and storage and feed-out losses were accounted for. In this way, the relative economic value of home-grown feeds relative to purchased feeds can be realistically measured.

Feed crop risk study

The GFCM was used to analyse the effect of yield and input price fluctuations on the feed cost of maize and six other homegrown feed crops and a purchased concentrate over the years 1999 to 2008. The year-to-year weather related yield fluctuations were quantified using data from the Department of Agriculture variety trials.

Maize sown without plastic was found to be the most risky feed crop per unit of net energy fed over the ten year period. While maize silage was cheaper than whole-crop and grass silages on average, it was the most costly harvested feed crop in low yield years and the least costly in high yielding years — as expected.

Due to the dramatic yield fluctuations, the year-on-year variability of maize silage cost (sown without plastic) was three times that of home-grown spring barley grain and twice that of a two-cut grass silage system.

A maize trial being established at Teagasc Kildalton last year



Plastic comparison study

A second study involving maize looked at the effect of sowing under plastic in average, very good and very poor growing seasons. Dry matter yield data was gathered from 10 studies in which maize was sown with and without plastic at numerous sites throughout the Republic and Northern Ireland over a 20-year period.

The average yield across all studies was used along with 2013 input prices to establish average feed costs at current prices. The very poor yield was equivalent to the bottom 10% of yields, i.e. a one-in-10-year poor crop.

The very high yielding crop was equivalent to the top 10% of yields; i.e. a one-in-ten-year good crop.

Table 1 shows the cost of maize relative to grass, grass silage and purchased concentrates.

In the very good yielding year, the plastic crop is slightly more costly than the non-plastic crop. In the average year, there is very little difference in cost per unit net energy between the plastic and non-plastic crops indicating that on average the cost of the plastic is paid for by the yield and maturity gains. However, the real

Key messages

Having assessed the above criteria and decided to grow maize, the farmer must then seek to manage the risks:

- Plan a winter feed budget; identify required dry matter tonnage, nutritional value, protein supplementation requirements, etc.
- Choose sheltered, fertile, free-draining, southerly aspect and easily accessed sites.
- Address compaction and drainage issues before sowing.
- Maximise nutritional value from slurry.
- Select appropriate varieties for the region, system and site.
- Use of plastic is essential in inland regions and is an optional insurance policy in favourable coastal sites.



Table 1: Yields, costs and relative costs of maize silage sown with and without plastic mulch cover

	PLASTIC			NO PLASTIC		
	Very Poor Yield	Average Yield	Very Good Yield	Very Poor Yield	Average Yield	Very Good Yield
Dry matter yield (t/ha)	13.0	15.5	18.5	8.8	13.0	17.0
Total feed cost €/t UDM	182	154	130	228	156	122
Total feed cost €/1,000 UFL	230	194	164	291	200	155
Relative to grazed grass	258%	243%	228%	327%	249%	216%
Relative to grass silage	91%	88%	85%	115%	91%	80%
Relative to purchased concentrates at €320/t	64%	54%	46%	81%	55%	43%

UDM = Utilised dry matter

UFL = Unit of net energy for milk production

Table 2: Mean nutritional values assumed for average yielding maize crops

	Plastic	No Plastic
Dry matter yield (t/ha)	15.6	13.0
Dry matter content (g/kg)	324	275
Starch content (g/kg DM)	280	196
Dry matter digestibility (g/kg)	671	663
UFL/kg DM	0.79	0.77
Metabolisable energy (Mj/kg DM)	10.82	10.66

DM = Dry matter

UFL = Unit of net energy for milk production

We acknowledge the Department of Agriculture, DARDNI, AFBI, UCD and Teagasc for use of the yield and nutritional value data.

value of the plastic can be seen in the very poor year where the crop sown under plastic is 20% cheaper than the non-plastic crop. So, the plastic is reducing yield variability and consequently feed cost variability.

Overall, year-to-year cost variability of the non-plastic maize crop was twice that of the plastic sown crop.

Two bad years

Average yields in both 2011 and 2012 fit comfortably in the 'very poor yielding' category above. When you should expect to have only one growing season as bad as this per decade, it has been extremely unlucky to have experienced two in a row.

These years also coincided with very high purchased concentrate prices (Table 1), so unless the crop was a total failure, farmers were no more out of pocket than they would have been by purchasing alternatives such as concentrates and straw. This was of course scant consolation because increased supplementation was still required to fill the deficit caused by reduced yields.

Mean cost and the 'average crop'

There is no such thing as an 'aver-

age maize crop'! Because growing conditions in coastal east Cork can be so different to those occurring in Monaghan, it is likely that maize would not be considered without plastic in Monaghan, while use of plastic may be unusual in good coastal sites.

Because the yield data used in the analysis were averaged across a diverse range of sites throughout Ireland, the year-to-year yield variability at any one site is likely to be much greater than the national average variability. Therefore, the risk-reducing effect of using plastic is greater at northern, inland sites than at sheltered, south-facing coastal sites.

Plastic and effects on nutritional value and feed cost

The above analysis of yields assumes constant nutritional value across average, high and low yielding years (Table 2).

Of course, in reality this is not the case and in poor growing seasons where cobs do not mature (or do not develop at all) starch and consequently energy values are reduced.

In addition, if the maize stover is affected by frost damage prior to harvest, digestibility can decline.

Much the same as for grass silage, harvesting date is a trade-off between digestibility and yield, the challenge with maize is to achieve sufficiently starch yields from the matured cob, while maintaining the digestibility of the stover.

Summary

GFCM analysis has shown that, on average, no other feed crop provides a cheaper alternative to a well managed grass based grazing/silage system where the silage area is grazed in spring and after harvesting. However, on some farms, maize can be very competitive.

There are three main scenarios in which high yielding, good quality maize silage can provide considerable savings:

- 1) Where the grass silage area cannot be efficiently grazed due to fragmentation or access issues.
- 2) Where desired animal performance during housing cannot be achieved by grass silage alone.
- 3) Where profitable output can be increased, or more costly purchased feeds replaced, by growing maize.

• Continues next page

The farmers' views:

FARMER	John Brooks, Taughmaconnell, Co Roscommon	Ronan Hughes, CAS Ltd. Killeen, Co Meath	Tom Nunan, Hook Head, Co Wexford
Years growing maize:	10	5	20
Area sown to maize in 2012 (ha)	8	12	6
Target feeding system for maize:	Fed by shear-grab to mid-season lambing ewe flock pre-lambing.	Fed as part of TMR diet to weanling and finishing continental beef bulls.	Buffer feeding spring-calving dairy herd during summer drought and in late lactation.
Sown under plastic?	Yes	Yes	No
How was yield and cob in 2012?	Yield was similar to 2011 but well down on all previous years. However due to using an earlier maturing variety cob and starch was better than in 2011.	Yield was very poor at 13t/ha, almost 50% less than 2010. Cob was OK with starch at 27% which was better than 2011, due to use of early maturing variety.	Appalling! Both dry matter and cob yields were about half what I would normally expect. Exceptional rainfall in June, followed by a poor July and wet August did the damage.
Variety:	PR39T803	Surprise	Very early varieties e.g. Andante.
Sown and harvested:	Early May and 20 October	Second week of May and third week of October	First week of May and first week October.
Feeding issues or pit management:	None, Use netting to deter birds. I prefer a little more moisture at harvest so as to prevent heating at feed-out.	I made a lower pit this year, at just 1.5 metres high this allows us to clear the full feed face daily. I would like a narrow, custom built pit.	Purpose built a walled maize pit four years ago. This helps feed face management. Use netting to prevent bird damage.
Benefits of maize to farm system:	Maize keeps ewes much drier and cleaner on slats than if they were fed grass silage. This helps hygiene and helps reduce infections at lambing while dagging of ewes is minimised in spring. A simple crop to manage once sown.	I find including maize in the finishing diet of bulls gives great performance. I think it helps increase intakes and keeps rumen functioning well. It also fits in well with the rotation, followed by winter wheat and then grass.	On a very fragmented dairy farm maize permits a higher stocking rate on the grazing area in early summer because less grass silage required. Low cost versus purchased feeds and ideal buffer feed during summer droughts.
Greatest challenges:	No major challenges. Restriction in choice of sites is a limitation; i.e. the field must be warm, free-draining and beside a road for harvesting.	The weather! Sowing in correct conditions is crucial, to prevent seed-bed compaction and getting plastic covered correctly. Sub-soiling is usually required after the second year of maize.	The weather cannot be changed so selection of site is crucial. I rotate fields every four to five years but finding a suitable site near to a road can be challenging.
Plans to change:	None at the moment.	I am giving maize another year, but if we have the same weather difficulties I will look at alternatives.	Have replaced maize with grazed grass in early lactation.
Other comments	I would love to see research focused on gaining more nutritional value from both the stover and cob for an earlier harvest. Being able to establish a second crop after harvesting would be a huge help to the economics of maize. I'm also interested in adding a crop such as kale to the pit with maize as a means of increasing silage crude protein.	I would like to see research analysis of maize economics as part of the whole farm system. I feel that because of using maize here we may have neglected the making of high quality grass silage. I will be aiming to make grass silage > 76 % DMD this year to complement the maize.	It would be great if some systems analysis was done on the economics of maize on fragmented farms. GM technology may also bring advances. Teagasc should take note of what farmers are doing on the ground and work with them to optimise these systems.



Teagasc Beef Manual

Get your copy now

For the first time, in a long time, beef producers have grounds for optimism. The discovery, and elimination, of horse meat contamination in beef mince must, in the medium term, be positive for beef prices.

The introduction of the BTAP discussion groups means that beef producers have greater access to the latest research and advice and can tease out the application of that knowledge with facilitators (Teagasc or other) and colleague farmers in a practical setting.

Many farmers have already decided that the Teagasc Beef Manual is also a useful tool to examine their own farming system and identify practical steps to reduce costs and enhance returns. Over 2,000 beef manuals have been sold so far.

The manual has assembled, in one place, information on the full range of topics which face beef producers. There are over 49 chapters (350 pages) grouped into key areas such as animal health, nutrition, choosing a beef system, marketing, beef facilities, etc.

Over 35 authors contributed to the beef manual, most were Teagasc researchers but there are also external contributors from the Department of Agriculture, Food and the Marine, Animal Health Ireland, and Bord Bia.

The beef manual was laid out after consulting with beef producers as to what topics they want covered. Farmers were adamant that the information should be easily accessible. The manual is structured as a series of dozens and dozens of questions and answers.

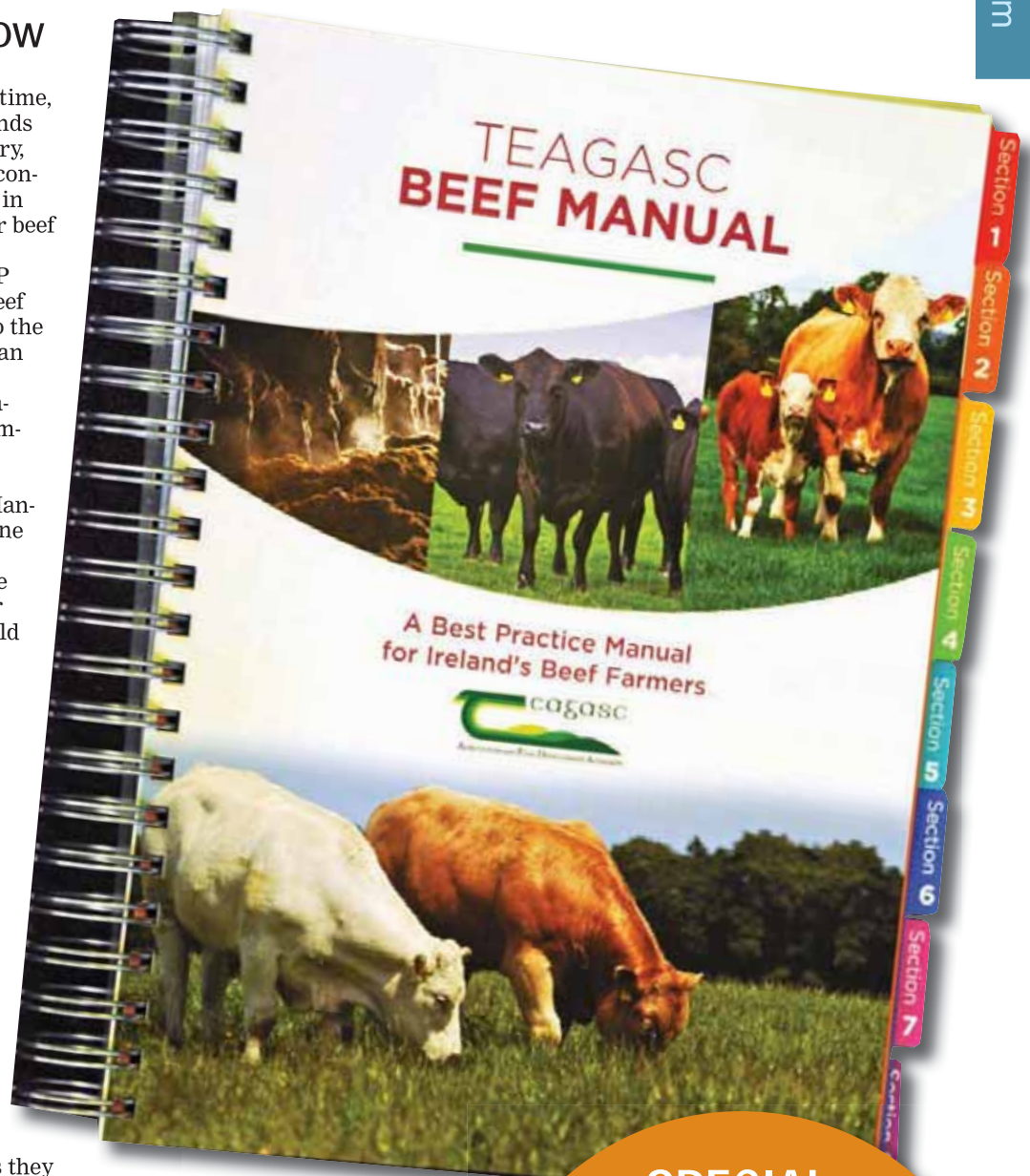
Teagasc advisers from around the country pored over each draft chapter to ensure the material was both comprehensive and practical.

John Fenton of Ballyorgan, Kilmfinnane, Co Limerick, who has a 65-cow suckler herd and rears all progeny to factory stage, says: "I like cross-referencing the information in the manual to my own situation.

"I dip into it every now and again. It's put together in such a way that you don't have to start at the beginning and read right through. I find that useful. I also like the fact that

it's made of tough waterproof paper because I often read it when I'm in for a coffee and not in my best clothes! I've recommended it to friends and I'd certainly encourage others to get a copy."

Derek O'Donoghue of Teagasc in Limerick is the facilitator of John's BTAP group and, incidentally, wrote the chapter on establishing a paddock system in the manual; "I think the manual can be of great value to BTAP members or any beef producer. Members and clients who have a copy can use the knowledge in there to challenge advisers and facilitators even harder. That's a really good thing."



SPECIAL OFFER FOR BTAP MEMBERS

The full cost of the Teagasc Beef Manual is €50 but this is reduced to €25 for Teagasc clients. There is a further reduction to €20 for BTAP members under certain conditions. To gain the price of €20, five or more members of a particular group must decide to buy a copy. This offer closes at the end of March. Clients wishing to avail of this offer should speak with their Teagasc facilitator.

From KwaZulu-Natal to Kildalton



Teagasc Kildalton College is gaining international recognition for the high quality of its equine courses and facilities. Mark Moore reports.

During her application interview, Shannon Symons was asked what she hoped to achieve with the knowledge

and experience she would gather on the Kildalton Equitation course. "To ride in the Olympics; and start my own stud farm," she replied. For this unassuming, softly spoken and down-to-earth native of KwaZulu-Natal, South Africa, aiming high is simply common sense.

With the whole English-speaking world to choose from, Shannon elected to attend Teagasc Kildalton where nearly 80 equitation/stud management students are part of a 900-strong student body. Courses at the college include a range of agriculture and horticulture subject areas as well as the two equine

courses. Shannon's choice reflects growing international recognition of the quality of the teaching and facilities at the Teagasc College located near Piltown, Co Kilkenny.

In recent years, students from Portugal, Britain and Germany have studied equitation and stud management at Kildalton.

This summer an exciting new project is coming to Kildalton – The International Cultural and Equestrian Academy (ICEA) is born – Michael and Josephine O'Hagan have developed a programme based on the concept of the education of young people through equestrian pursuits and culture at Teagasc Kildalton College.

"While at Kildalton, the Chinese students will experience hands-on equestrian training and receive tuition at whatever level they are comfortable with from professional trainers. They will also experience a farming culture," says course director Rosemary Gaffney.

"Kildalton equine students will take part in the process of training



Student visiting from Shanghai with the International Cultural and Equestrian Academy (ICEA)

Pictures by Mark Moore



Aim of courses

Who are the courses aimed at?

People who hope to:

- Make a career in horses.
- Professional competition riders
- Coaches/BHS (British Horse Society) instructors.

There are no minimum educational entry requirements. Applicants must have riding experience and be over 17 years on 1 January, following entry on to the course. Applications should be made directly to Kildalton College by 1 June 2013. Provisional dates for interviews this year is the week of 24 June 2013.

Students will take a short exam paper of basic horse questions and will also be expected to tack up and ride if they are trying for a place on the equitation course and show a horse in hand if they are doing the stud course. Students will do a basic reading writing and math paper. Students are chosen from the results of these assessments.

these students by acting as 'buddies' teaching them hands-on skills with the horses and many other aspects of managing these horses on a day to day basis."

By recommendation

"I have an aunt in Britain and a friend of hers there, an equine journalist with *Horse and Hound*, recommended Teagasc Kildalton," says Shannon Symons.

"I also did quite a bit of research about the college and the courses here. The staff were incredibly responsive and helpful and, when I visited, I loved the mix of traditional college buildings and ultra modern facilities."

Eventually, Shannon sat her interview, written exams, and an assessment of her horsemanship before being accepted onto the Kildalton FETAC Level 5 course, which began in September last year. Application forms are available on the Teagasc website and interviews usually take place in early summer.

"Students usually come here for two years," says equine lecturer Crea Warner. "Over that time, they will complete FETAC Level 5 and 6 courses, Green Cert and some attain their British Horse Society qualifications."

Roughly, two-thirds of the students opt for the equitation course with the remainder pursuing the stud management course. "We typically have two or three applicants for every place," says Crea Warner. "Both courses are constantly evolving to benefit the students and reflect changes in the horse industry generally."

Course content

Theoretical modules such as anatomy, physiology, horse breeding, nutrition, and health and welfare are core subject areas on the FETAC Level 5 course. Students also learn the practicalities of lunging, loose schooling, long reining, as well as honing their riding skills.

On the Level 6 course, students add breaking and training of horses,

coaching, staff management as well as dressage, showjumping and cross country riding. Horse conformation/evaluation, pasture management and horse breeding are also pursued in greater detail on both Level 6 courses.

Students love the riding, handling and working directly with the animals. Kildalton's 365 acres, state-of-the-art arenas and stabling facilities ensure that hands-on practical training can form a large part of each course.

Thomas O'Leary, from Enniscorthy, Co Wexford, is also in the first year of the course in horsemanship and an experienced rider. "I've been riding at pony clubs etc since I was about six. A neighbour who had been to Kildalton recommended the course and I'm enjoying it. "There's a really good mix of practical and classroom training and you learn from fellow students, as well as the course itself. Each student is trained in a wide range of skills, which are essential for the care and management of horses."

• Continues next page

CLOCKWISE, FROM FAR LEFT (MAIN PICTURE):

- Suzanne Murphy, Patrick Sheehy, Joanne Curtin and Dillon Nugent.
- Shannon Symons.
- Thomas O'Leary.

horses

•From page 19

The staff supervise and encourage the students to get their tasks done quickly and efficiently. So, as well as learning the theory and practise of working with horses, you're learning how to work and I reckon the good habits will stick with us."

Take your partner

Each evening a fresh timetable is put up in the yard of 40 horses and riders for the following day. Each student rides, lunges, or trains one or two horses, depending on the day.

Naturally, there are favorites. "There are some horses that just seem to know what you want to do and make it very easy," says Amy Ryan from Ballina.

"You might not 'click' so well with other horses and it might be a little harder but you're always learning. Because you are riding/lunging, a large number of horses your skill improves and you gain the confidence to manage any animal.

"We have nearly 60 horses at Kildalton," says Crea Warner.

"They are brought here from all across the country. They are 'on loan' to educate the students and like the students they can go home at the weekends and during the holidays."

Students who are on the stud management course do not ride, but learn all the breaking skills. Their course is also highly practical and includes work placement at studs such as Ballylynch, Vinesgrove and Carriganog Stud.

Prospects

"Our job is to produce skilled hands on graduates who are an asset to the industry and can generate a living pretty much straight away," says Crea Warner.

"Some students have their BHS AI, which means they can immediately take up a job as a riding instructor. Graduates from the stud management course sometimes go back home to manage the family business or they find employment on stud farms in Ireland or abroad."

Students can go on to become professional riders. Captain Geoffrey Curran, a Kildalton graduate,



Louise Lowe and Jallowa Drout, who is 'picking out the horses foot'.

competed in the World Equestrian Games and the Olympics. Other students have very specific career ambitions. "I'd like to get into equine dentistry," says Thomas O'Leary. "I'll need additional qualifications after leaving Kildalton to do that but the courses here, in anatomy for example, are an excellent basis for that." Sean Hayes a former student at Kildalton, is an equine dentist from Kerry.

"I am learning so much on the FETAC Level 5 course and am looking forward to next year too," concludes Shannon Symons. "I thought I knew about horses until I came here."

Why choose Kildalton?

Hands-on courses for hands-on people who want to:

- Get recognised qualifications within the horse industry.
 - Earn a Green Cert – making them eligible for grants and schemes as young trained farmers.
 - Join the most recognised college/yard in Ireland for BHS training.
 - Improve their riding on specialised horses.
 - Learn about breeding.
 - Break and train horses.
 - Gain teaching qualifications.
 - Meet people with the same interests.
 - Travel the world.
- If so, this is the place for you!

Left: Crea Warner (left) and Rosemary Gaffney.

Wildfire!

Tom Houlihan (Kerry) & John Casey (Cork), Teagasc Forestry Development officers, Teagasc Rural Economy Development Programme

Uncontrolled fires have had devastating consequences over the past few years. During 2010 and 2011, some fires, particularly in the northwest, were so substantial that they were picked up by the MODIS satellite, operated by the European Forest Fire Information System.

While the incidence was lower in 2012, significant wildfires still occurred. Recent prolonged periods of wet weather have restricted the opportunity for controlled burning of hill vegetation.

This vegetation, when combined with drying winds under favourable conditions, has the potential to become the fuel source for highly destructive wildfires similar to those of 2010 and 2011.

We are now in the prohibited period for the burning of growing vegetation (1 March to 31 August). All members of rural and urban communities can assist and share responsibility for the protection of our countryside, forest resource and property.

Public awareness and prevention

The Department of Agriculture, Food and the Marine has led media fire awareness campaigns. A number of local Wildfire Inter-Agency Groups have also come together to tackle wildfire issues.

Teagasc promotes best practice with regard to fire risk, forestry and the management of land resources in an environmentally sustainable manner, including provision of hill management courses under REPS.

Multi-agency training events have been held in Kerry, Laois and Louth. The Forest Service launched a Prescribed Burning Code of Practice which provides advice on planning and preparing burning operations, risk assessment, contingency planning, and guidance for safe, controlled burning.

While controlled burning has long been used as a land management tool, such activity requires expert skill and experience.

West Cork Wildfire Interagency Group

This group was set up in 2012 to bring the various stakeholders to discuss how burning of mountain vegetation could be done both legally and safely. Participants include An Garda Síochána, the Fire Service, National Parks and Wildlife Service, the Forest



A controlled burning demo in Co Laois.

Service, Teagasc, the IFA, and Coillte.

Last year, the group launched a media campaign using local papers, radio and meetings to inform landowners of fire brigade call out charges; the increased number of Garda investigations and the law as it affects them.

The emphasis was on co-operation between the landowners and the agencies as well as developing a shared understanding of the issues and opportunities to work together.

The group regards 2012 as having been a great success. The number of call-outs by the An Garda Síochána was down 50% on the previous year, while call-outs by the Fire Service was down approximately 75%.

Of course, the weather played a major part in this too, but significant reductions in fires were also reported for March which was relatively dry in 2012. The group has already met this year and a similar media campaign this year is being organised.

Fire weather index

• Consult Met Éireann's Fire Weather Index on www.teagasc.ie/forestry. This index provides information on the fire risk in different areas throughout Ireland, taking into account current and past weather conditions. It also provides a forecast index for five days ahead.



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tillage

Careful planning is key for these tillage farmers

Eamonn Lynch,
Teagasc B&T Tillage Adviser,
Cork East & Waterford

Rotations in Cork East & Waterford were traditionally anchored on sugar beet with spring wheat and spring barley as the main cereal crops. Since sugar beet's demise, however, many farmers have switched to winter oilseed rape and beans as break crops.

This has led to a lot more winter barley and winter wheat production. These are expensive crops and need careful planning and management from start to finish.

Particularly since the harvest of 2012, farmers are sharply focussed on costs as a key factor in profitability.

Luke and Matt Cunningham farm 80 hectares of arable land in Kinsalebeg, Co Waterford. Luke and Matt's crops for 2013 consist of 32 hectares of winter barley, 18 hectares of winter wheat, 15 hectares of winter oilseed rape and the plan is to sow 15 hectares of spring oats.

"Our main focus is to keep as much winter wheat and winter barley in the rotation as possible," says Luke.

"We got an average of 9.6t tonnes/hectare of winter barley in 2012 and 7.3 tonnes/hectare of winter wheat."

Both of these yields were above average for this area in 2012. The Cunning-

hams are very much focused on yield and know that they need to restore yields, especially in winter wheat, to closer to 10 tonnes/hectare in 2013 while keeping costs in check.

2013 plan

From the day the crops are sown, Luke keeps a record of inputs applied to the crop using the Teagasc e-crops programme. "The programme gives me an up-to-date cost for every input applied."

For 2013, Luke has started to use the e-crops programme to actually form a complete budget for all inputs right through to harvest.

"Using realistic yield estimates we can know, within a small percentage, what margin can be achieved on each crop," says Luke.

"As the year progresses, there may need to be slight adjustments made due to weather patterns and disease pressure but, in the main, inputs should not change too much."

Plan for the next month

For 2013, Luke and Matt have sown a mixture of Cassia and Leibniz winter barley. They mixed this themselves at a rate of 60% Cassia and 40% Leibniz.

"Our aim is to increase average yield by using Leibniz and improve quality by including Cassia in the mix," says Matt.



"We did something similar in 2012 and got an increase in yield compared with using all two row varieties."

The basic fertility of the farm is very good with high levels of phosphorus and medium to high levels of potash.

“ The basic fertility of the farm is very good with high levels of phosphorus and medium to high levels of potash. They have access to organic manure locally in the form of pig slurry



Teagasc Tillage specialist Tim O'Donovan, Luke Cunningham, Matt Cunningham, Eamonn Lynch


E-Crops programme
What is the Teagasc E-Crops programme?

The Teagasc E-Crops programme is basically a computerised record book. It is laid out in the same way as the Grain Assurance 'blue book' but it allows growers to put prices of inputs down for each crop. Luke Cunningham has been using the programme for a number of years and has taken it a step further in that he is using it to plan his crop budgets for the coming year. This can be done easily by copying the 2012 records and using them (with adjustments) to plan for 2013. It has an added benefit as it acts as a reminder to apply something to a deficient field e.g. a trace element, etc. The programme is available free to Teagasc clients through their local adviser.

– Tim O'Donovan



LEFT: Luke Cunningham and Eamonn Lynch examine a winter oilseed rape crop.

They have access to organic manure locally in the form of pig slurry and when conditions allow this is applied at 25m³/hectare on land after cereals but not, in general, after oilseed rape.

With sufficient phosphorus and potash levels available to the crop, they plan to go with straight nitrogen in the next two weeks and this will probably include sulphur either as ASN or sulcan.

"The amount will depend on when we get to spread it but it will probably be 50kg to 60 kg/hectare," says Luke.

Weed control, aphicides and slug pellets have been applied to all barley in the autumn. Once the crop is growing post nitrogen application, the plan is to split CCC to promote an even thick crop and help rooting.

Winter oilseed rape

"Our winter oilseed rape is a mixture of sensation, dkexpower and dkexcalibur," says Luke.

"Weed control consisted of katamaran pre-emergence and parts of the

field were treated with a new product to the market from Dupont, called Salsa, which is a post emergence herbicide to control brassicas such as charlock," says Luke.

The crop has also had a fungicide, a graminicide and solubor in the autumn. The overall condition of the crop is good with a plant stand of 30 to 35 plants/m², which is more than enough for this time of the year.

"Over the next few weeks, we plan to apply nitrogen and potash as required and add sulphur probably in the form of ASN," adds Matt.

"This crop isn't as advanced as crops were this time last year and will more than likely get 225kg/ha of nitrogen in total as per the Nitrates Directive. The first nitrogen split will go out before the first week of March at 60kg to 70 kg/ha."

Winter wheat

"Our winter wheat crop isn't as advanced as the winter barley as it was sown a bit later," says Luke. "The

soil is heavier and makes it difficult to manage early and late in the season. Some of the ground has recently been ploughed from lea. However, even though there was some water logging, the basics are ok thanks to a good plant stand.

"The biggest problem with this land is that it will need fertilizer in the next two weeks but we probably won't be able to travel it."

Early nitrogen generally isn't as crucial in winter wheat compared with winter barley so, hopefully, this won't have an adverse effect on the crop.

Discussion group

Luke and Matt are part of the Blackwater Tillage Discussion Group who recently met for their February meeting. The group are very focused on timing their meeting to enable proper planning.

"Making informed decisions and constantly planning in order to keep things on track is vital in the current volatile climate," concludes Luke.

Apply **NOW** for your 2013 derogation



Tim Hyde, Teagasc Crops Environment and Land Use Programme, Athenry

Any farmer who's grazing animals produce >170kg livestock manure N/Ha (NpH) is entitled to apply for a derogation to farm between 170 and 250NpH.

There are some key points that farmers intending to apply for a derogation must consider:-

- The number applying for derogations has been rising each year since 2007 and 5,200 farmers applied in 2012 (*Table 1*).
- Another 3,500 farmers breached the 170NpH limit in 2012 and did not apply for a derogation. Some of these farms may have exported slurry, rented/grazed other lands not declared on SPS 2012 or some farms may have been locked up with TB during 2012 and were unable to reduce cattle numbers. All of these issues help reduce the NpH on farms.

Why apply for a derogation?

Farms who successfully apply and achieve the derogation requirements are allowed higher recommended nitrogen and phosphorus limits (more chemical N and P allowed on the farm).

If you don't apply for a derogation,

you must closely watch your NpH all during the year to ensure that you exceed the 170NpH. There are penalties for farmers who exceed 170NpH and who did not apply for a derogation — see DAFM penalty table below which applies to all EU-funded schemes.

Some 3,500 farmers received letters

Table 1: Number of applicants for a derogation (2007-2012)

Year	Approved derogation applicants (REPS & Derogation farmers)	Farms > 170kg who did not apply for a derogation *	Farms > 250kg who did not apply for a derogation
2007	4,133	3,600	700
2008	3,855	3,700	500
2009	4,909	3,477	470
2010	4,190	3,520	496
2011	4,600	2,800	450
2012	5,214 (derogations approved)	3,047	446

* DAFM source: These farmers may have exported organic manures or may have rented additional lands so that they may actually be <170 and the figure in this column may be significantly less.



Nitrates inspections

- DAFM will complete approximately 1,500 Nitrates (SMR 4) Local Authority inspections in 2013 and also 1,500 Nitrates (SMR 4) inspections as part of 2013 full cross compliance inspections.
- A Nitrates inspection in 2013 requires the Nitrates record sheets for 2012 to be submitted to the DAFM (need fertilizer for 2012 and concentrate for 2011 to complete these records). Record sheets for Nitrates only need to be submitted following an inspection.
- Farmers inspected before 31 March must submit their Nitrates records by either 31 March or within 14 calendar days of the inspection, whichever is greater.
- Farmers inspected after 31 March must submit their records within 14 calendar days of the inspection.
- Late submission of Nitrates records carries a 1% penalty.
- The only acceptable proof of postage is Swift Post or Registered Post receipts for all correspondence with the DAFM.
- Increased concentrate usage in 2012 will affect 2013 derogation fertilizer plans and all other fertiliser plans on farms. (concentrate fed in previous year affects the chemical P allowed on farms). All non-derogated farmers are required to have a fertilizer plan on farms and this is requested by the DAFM if there is a Nitrates inspection – have you got one?

from the DAFM this spring indicating that the DAFM records showed that these farms had breached the 170kg NpH limit and, therefore, they would be penalised on payments from EU funded schemes, unless they could provide an adequate explanation which shows that the farm was not above the 170kg NpH in 2012.

The DAFM recommends that all recipients of these letters should contact their advisers for advice on this issue.

Derogation requirements

All terms and conditions of the derogation must be adhered to:

- You must make an annual application to the Department in the format specified.
- You must undertake in writing to fulfil the terms and conditions of the scheme.
- You must be farming a holding that is at least 80% grass.
- You must have grazing livestock — a

derogation is only available in respect of grazing livestock.

- You must have a fertilisation plan in place for your holding by 1 March. This plan should be submitted to the Department along with your application form unless you have an approved REPS 4 plan in place OR unless you had an approved 2010, 2011 or 2012 Nitrates Derogation Application.
- You must keep fertilizer accounts. After the end of each calendar year, your fertilizer accounts must be submitted to the Department to be received no later than 31 March of the following year.
- Fertilizer plans must be based on soil analysis results dated after 15 September 2009.
- Applicants who have never previously applied for a derogation and do not have soil analysis results must assume Index 3 for 2013 but must have samples analysed and their fertilizer plan amended accordingly before 31 December 2013.
- Applicants who have previously ap-

plied for a derogation and do not have soil sample results must assume Index 4 for 2013 but must have samples analysed and their fertilizer plan amended accordingly before 31 December 2013. Concentrates can be fed but no imported phosphorus fertilizer can be used until results are available.

- See DAFM for full details online at <http://www.agriculture.gov.ie/ruralenvironment/environmentalobligations/nitrates/nitratesderogationinformation/>
- Each derogation application in 2013 requires a farmyard sketch to be submitted that provides a link with the buildings on the fertilizer plan.
- The application deadline for 2013 paper derogations is 31 March.
- The application deadline for online 2013 applications is 14 April.
- Derogation Records 2012 deadline for submission is 31 March 2013 (need to submit fertilizer for 2012 and concentrate for 2011).

Contact Teagasc or your local DAFM office for further information.

botanic gardens

Bring spring indoors

A simple flower arrangement can help banish the winter blues

Linda Murphy
Teagasc College of Amenity
Horticulture

In the early months of spring, the progression of bulbs, snowdrops, crocuses, daffodils, hyacinths and tulips is particularly cheering after the long dull months of winter.

Although these bulbs provide a valuable addition to early flowering shrubs and trees in the garden, there is nothing as attractive as being able to pick a few flowers from the garden to bring into the house, where their freshness and beauty can replace the dried arrangements of Christmas and herald the days of summer sunshine to come.

Rather than 'plonking' a few daffodils in a vase, it can be a good idea to try arranging these early spring bulbs into a miniature landscape design for the hall table. Growing in the garden, spring bulbs have relatively little foliage around their stems and this is how they look best indoors also; arranged in a way to reflect their natural environment.

A few simple elements are all that is required for this task.

All you need is:

- A flat plastic dish or basket
- A 5cm pin holder, (these can be bought in any flower shop).
- Seven or eight daffodils, and
- One or two branches from the garden.

Before starting, in it is important to give the flowers a long 'drink'. All flowers benefit greatly from this 'conditioning' and will last much longer in the arrangement. This process consists of cutting the end of the stems before being plunged into water for at least two hours before starting the arrangement.

Place the pin holder to one side of the dish and secure it with plasticise



Pinholders are a useful tool in flower arranging.



Flowers are most effective when arranged to reflect their natural environment.

or 'Oasis Fix'. This must be done while the pinholder and dish are both dry. Now, add water to a depth of 4cm. If you are using a basket, put the pinholder in a small shallow dish which can accommodate an inch or two of water.

To provide height, arrange one or two branches from the garden on the pinholder. For proper balance, the highest branch should be one and a half times the width of the dish and the highest point in the branch should be directly over the pinholder.

Position the daffodils within the framework made by the branches. Cut each stem slightly shorter than the last and place it naturally on the arrangement. Remember to turn some of the flowers to each side just as they would grow in a clump in nature. This also helps to stabilise the design and gives good visual balance.

Finally, a few large green leaves, such as bergenia or ivy, arranged at the base of the arrangement will

give some visual weight and have the practical function of covering the pinholder.

Seasonal branches

Branches of hazel complete with catkins are particularly good for arranging with spring bulbs as they are so evocative of the season.

As spring progresses, sprays of willow *Salix caprea* or cherry trees particularly *Prunus serrula* which produces lovely long stems of blossom each spring on its beautiful peeling mahogany bark, are invaluable.

The contorted hazel *Corylus avellana* 'Contorta' is perfect for this work and adds great 'movement' to the design. Another shrub commonly seen in many gardens and is delightful to cut for arranging is *Forsythia*. The variety *Forsythia* 'Lynwood' with its attractive yellow flowers in late spring and golden/rust coloured foliage, in autumn is very useful shrub for this purpose also.

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