



TEAGASC

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Today's Farm

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



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COMMENT



Mark Moore
Editor,
Today's Farm

Why you should do a Green Cert

Getting a Green Cert is a must for young farmers who wish to apply for schemes or reduce their tax burden on inheritance. Getting the Green Cert is sometimes seen as a box to be ticked on the way to becoming a farmer, but in our cover story, we speak to students who describe a whole range of benefits they gained through doing the course beyond technical knowledge and skills. Personal growth, increasing self-confidence and a new network of close friends are described by alumni of Teagasc, Teagasc-partnered private colleges and Teagasc Advisory Region education courses. Many describe the Green Cert as a gateway to a range of options, be they in further education, an off-farm career or farming.

An fáth ar cheart duit Teastas Glas a fháil

Is é fírinne an scéil nach féidir le feirmeoirí óga déanamh gan Teastas Glas na laethanta seo, go háirithe más mian leo cur isteach ar scéimeanna nó an muirear cánach ar oidhreacht a laghdú. Is amhlaidh go bhfuil an Teastas Glas ar cheann de na rudaí a chaithfidh tú a fháil ar do bhealach le bheith i d'fheirmeoir. Bíodh sin mar atá, labhraímid inár scéal clúdaigh le mic léinn a dhéanann cur síos ar raon iomlán na mbuntáistí a thug an cúrsa dóibh, buntáistí nach mbaineann le heolas agus scileanna teicniúla amháin. Labhraíonn alumnais de chuid Teagasc, coláistí neamhspleácha agus cúrsaí cianfhoghlaime faoi na deiseanna a fuair siad chun iad féin a fhorbairt, a gcuid féinmhuiníne a chothú agus líonra dlúthchaíde a fhorbairt. Bealach chun réimse ollmhór deiseanna é an Teastas Glas dar le go leor daoine, bídis sa bhreiseoidéachas, i bpost nó san fheirmeoireacht.



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Editor: Mark Moore
Sub-editor: Mary Ryan
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All editorial enquiries to: Teagasc, Oak Park, Carlow
Tel: (059) 917 0200 Fax: (059) 9183498
e-mail: mark.moore@teagasc.ie | web: www.teagasc.ie

All advertising enquiries to: Paul O'Grady, Think Media
The Malthouse, 537 NCR, Dublin 1, D01V822
Tel: 01-856-1166/086-246 8382

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Cover: Green Cert graduate Maria Keane previously studied music and psychology. Today, she farms in partnership with her husband Pádraig. The Offaly couple place strong emphasis on work-life balance, which includes spending lots of time with their daughter Maewyn. *Mark Moore*

Teagasc Business Strategy Course

Teagasc will run the course in Business Strategy in collaboration with the UCD Michael Smurfit Business School and Macra Skillnet again this autumn. The course is residential and participants will need to be available on the following dates.

• November – Tuesday 1, Wednesday 2

and Thursday 3 2022.

• December – Tuesday 6 and Wednesday 7.

The course, which consists of modules covering topics such as strategy formulation, negotiation, managing yourself and others, leads to an accredited Level 8 qualification. There

are no academic barriers to joining the course (no leaving certificate/points etc are needed) provided you have been managing your farm business for three years or more.

For further details, contact Mark. moore@teagasc.ie or phone 087 417 9131.



Graduates of the 2021 course include: Jerry Duggan, Colum Walsh, Peter Robinson, Donal Sweeney, Tom Dunne, Leonard Betts, Grainne Hurley, James Skehan, Gerry Fallon, John Sampson, Marianne Mulhall.

**2022
RDS Teagasc
Farm Forestry Award**

First prize: €2,000
Runner-up: €1,000

**Recognising
the sustainable integration
of forestry and farming**

www.rds.ie/agriculture/forestry

Closing date: Sunday 31 July 2022

2023 RDS Teagasc Farm Forestry Award – now open for entry

The Teagasc Farm Forestry Award recognises working farmers who are integrating forestry and farming for environmental, social and economic benefits. It acknowledges the farmer's role in actively integrating and managing the forest to support farm viability and to strengthen wider farming sustainability.


The award is part of the annual RDS Forest and Woodland Awards, which are Ireland's national forestry awards.

Prizes

- The winner in each category will receive €2,000, an RDS silver medal and a perpetual trophy.
- The runner-up in each category will receive €1,000 and a special certificate of merit.

How to enter - application forms are available on the RDS website www.rds.ie/agriculture/forestry or via email from forestry@rds.ie. Closing date for entries is Sunday 31 July 2022.

For further information, contact your local Teagasc forestry advisor or go to www.teagasc.ie/forestry



The Beef Edge Podcast

The Beef Edge is Teagasc's weekly podcast covering news, information, tips and advice for beef farmers.

Presented by Catherine Egan, The Beef Edge provides insights and opinion to improve your beef farm performance.

How do I listen?

The Beef Edge is available on:

iPhone Android Spotify

Open the camera on your phone & scan the QR code for more information

ADVERTORIAL



Considering finishing cattle at grass in 2022?

Maeve Regan,
Head of Ruminant Nutrition, Agritech

The art of beef production centres around converting feed into kilograms of carcass as efficiently as possible. With predicted rising concentrate feed prices this winter, the efficiency of producing this kilo of carcass must be assessed. Feed costs account for 75% of variable costs in Irish beef production. Grazed grass is the cheapest feedstuff available to us, and this year above any other, the opportunity to finish a high percentage of cattle at grass must be strongly considered.

Typically, when cattle are housed for finishing, the cost per kg of live weight gain increases by up to 50% compared to grass-based finishing. To put this into perspective in 2022, a kilo of dry matter (DM) of grazed grass will equate to approximately 12c/kg, relative to one kg of silage at 21c/kg DM and concentrate costs are expected to be closer to 45-50c/kg DM.

Therefore, the question must be asked, is there a proportion of animals on farm that can achieve adequate fat cover and live weight gain to be slaughtered directly from grass this summer? In many cases, later maturing animals will require an indoor finishing period, but can this feeding period be shortened by feeding at grass prior to housing? Supplementation rates at grass will depend on grass availability, grass quality and animal type. A high energy, low protein supplement will suffice at grass. Typical feeding rates will be 0.5-1kg concentrate/100kg liveweight.

Grassland management

It has long been stated that regardless of the finishing period occurring at grass or indoors, the economic sustainability of any beef production system depends on optimizing the contribution of grazed grass to the lifetime diet of an animal.

Excellent grassland management will underpin the success of finishing cattle efficiently from grass. Energy is the main driver of live weight gain, which will be achieved by utilising top quality grazed grass (rotational grazing (18–21-day round), targeting pre-grazing covers of 1,300–1,500 kg DM/ha). At a time of year where maintaining grass quality can be quite difficult, an emphasis must be placed on walking grazing ground to make timely informed decisions.

For further advice on finishing cattle from grass contact your local Agritech Sales Advisor or visit www.agritech.ie



www.agritech.ie



NEWFORD FARM OPEN DAY

Tuesday 13 September

Newford Farm Athenry, Co Galway, will host its Open Day on Tuesday 13 September from 3.30pm to 6.30pm.

The theme of the day is 'Suckler Beef in Challenging Times'. Best practices in relation to grazing management, beef genetics, breeding and reproductive management, environment/carbon footprint, farm profitability and farm planning will be demonstrated and discussed on the day.

There will be a mix of technical presentations and interactive workshops dealing with all the main areas important to Newford Farm and it will be a unique opportunity to see

how the farm is performing.

The open day is free to attend and all suckler/beef farmers and those involved in the sector are welcome.

Areas that will be addressed on the main technical stands include;

- Farm profitability on Newford Farm.
- Is the cow type delivering on Newford Farm?
- How genetics and grazing is improving beef performance on Newford Farm.
- How Newford Farm is trying to improve its carbon footprint.

What's different on Newford Farm?

In recent months, a lot of attention has been placed on environment and carbon footprint while also increasing profitability, so Newford Farm aims to draft the 2021 progeny beef

heifers at 16-17 months of age for slaughter.

Through earlier drafting of these heifers, it is hoped to reduce the volume of fertiliser required while still building sufficient grass covers to extend the grazing season. The earlier slaughter dates will also reduce the carbon footprint of the production system and it is hoped this will coincide with the higher seasonal beef price during the months of June/July. The results of this will be discussed on the day and how it will affect the farm going forward.

Newford Farm is part of the Signpost/Future Beef Farms, so Newford Farm will continue to produce quality beef as efficiently as possible to make beef farming more profitable and at the same time, make it more environmentally and socially sustainable.

As Newford Farm looks to the future, the farm's main priorities will be to;

- Incorporate more clover into the paddocks and reduce the amount of chemical nitrogen fertiliser.
- Reduce age at slaughter of finished cattle.
- Reduce environmental losses by using protected urea.
- Continue to maximise profitability.

All of these will be discussed in detail at the open day.

We look forward to meeting you on Tuesday 13 September.



BALLYHAISE'22 OPEN DAY

Wednesday 13 July**Time:** 10am-5pm.**Venue:** Ballyhaise Agricultural College, Ballyhaise, Co Cavan.**Eircode:** H12 E392

The theme of this year's event is, 'Futureproofing Irish Dairying'. Irish dairy farmers have expanded significantly since the abolition of milk quotas in 2015 and this has made a very significant addition to family farm income in rural communities throughout Ireland, in particular, in the border midlands and western region.

Future development of the dairy industry will require a close alignment with EU and national policy objectives, with a particular focus on reduced carbon emissions and improved water and air quality and biodiversity.

Ballyhaise'22 will highlight the various technologies and practices available to farmers to underpin future farm profitability and sustainability.

Ballyhaise'22 is an ideal opportunity to see, first-hand, the results of the comprehensive research programme undertaken by Teagasc and to meet research, advisory and education

staff. Financial support for our research programme from state grants and Dairy Levy Research Funds is gratefully acknowledged.

The main technical stands will cover the following topics:

Profitable milk production systems

- Key technical efficiency drivers.
- Sustainable production systems.
- Making dairy farming an attractive career.

New frontiers in breeding technology

- Are high-EBI cows more carbon efficient?
- Increasing the quality of beef from the dairy herd.
- Role of new technologies: sexed semen.

Adapting to clover-based low nitrogen systems

- Benefits of clover in dairy swards.
- Establishment techniques.
- Grazing management.

Benchmarking farm performance

- Budgeting for improved financial performance in 2022.
- Cost control options during periods of inflationary costs.
- Cash flow management options.

Technology village and demonstrations**Grazing practice**

- Clover establishment and management.
- PastureBase Ireland.
- Importance of soil fertility.

Signpost Programme

- KPIs for dairy farms.
- Key drivers of farm sustainability.
- Profitable pasture-based systems of milk production.

Improving nutrient use and retention on-farm

- Agricultural Sustainability Support and Advisory Programme (ASSAP).
- Benefits of protected urea fertilisers.
- Heavy soils programme.

Breeding and reproduction

- DairyBeef 500.
- Breeding for lower GHG emissions.
- Advancements in reproductive technologies.

People Farming Smarter

- Increasing labour efficiency on dairy farms
- Training the next generation of dairy farmers.
- Succession planning – engaging the next generation.

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OPEN DAYS

Organic Farm Walk - Declan Houlihan**13 July**

Organic cereals and poultry-eggs farm walk.

Venue: Corrigreen Organic Farm, Rathcabin, Birr, Co Offaly.**Eircode:** R42 C854**Organic Farm Walk - Rose O'Sullivan and Martin Fox****19 July**

Organic field-scale vegetables, protected cropping, cereals, poultry-eggs and direct selling farm walk.

Venue: Spring Cottage Organic Farm, Parke, Kinnegad, Co Westmeath.**Eircode:** N91 XFW3**Event time:** 2pm**Energy In Agriculture****19 July****Event time:****Venue:** Gurteen College, Ballingarry, Roscrea, Co Tipperary.**Energy and Farm Business Show 2022**

The Energy and Farm Business Show is set to bring you an incredible day full of unmissable insights into the latest revolutionary products transforming the agri-industry. Gurteen College will be transformed into the ultimate hub on Tuesday 19 July, ready to turn your ideas into a reality.

The Energy and Farm Business Show is a must-see event for landowners who are forward-thinking and looking to diversify into the energy, leisure, hospitality, food and tourism industry.

This free-to-attend event is open to all who are interested in reducing energy consumption and increasing the production of renewable energy on farms.

This year, there will be a strong focus on diversification on the farm, with a whole set of talks designated to the topic.

Johnstown Castle Open Day - Technologies for farms of the future
30 August**Event time:****Venue:** Teagasc, Environment Research Centre, Johnstown Castle, Co Wexford

What will farms of the future look like? This open day will demonstrate technologies and practices that can be adopted on farms to help to maintain farm productivity and profitability, while increasing overall environmental sustainability.

The latest information for successful management of grass-clover and multi-species swards under winter and spring-calving dairy and dairy calf-to-beef systems will be available.

Practices to enhance on-farm biodiversity and reduce losses of valuable nutrients from the soil will be demonstrated. You will also learn about the latest fertiliser and slurry technologies and methods for enhancing carbon sequestration and soil health.



Why July is the most dangerous month

Grim figures suggest greater caution than ever is needed on farms in summer.

Frances Bligh
Teagasc Health and
Safety officer.



July is 'danger month' on farms. During the 10-year period described in Figure 1, July averaged 20 on-farm deaths.

This is 66% or more than two-thirds higher than the next highest month, May, which accounted for an average of 12 deaths.

Any farm death is a tragedy and our aim here is to try to prevent not only the loss of life, but also the sadness and hardship for families which ensues from farm fatalities.

August and September, along with May and July, make up the four highest months for farm deaths.

These stark figures should motivate everyone involved in farming to identify and manage risks in order to prevent unnecessary deaths and serious injury.

The summer months are particularly busy on farms, with long hours of hard, high-risk work, usually involving tractors and machinery.

Major causes of injury and death include;

- Vehicles and machinery.
- Livestock.
- Falls from height/objects falling.
- Tiredness/hurry.

The Health and Safety Authority (HSA) statistics over this 10 year period indicate the major causes of death and injury are as follows:

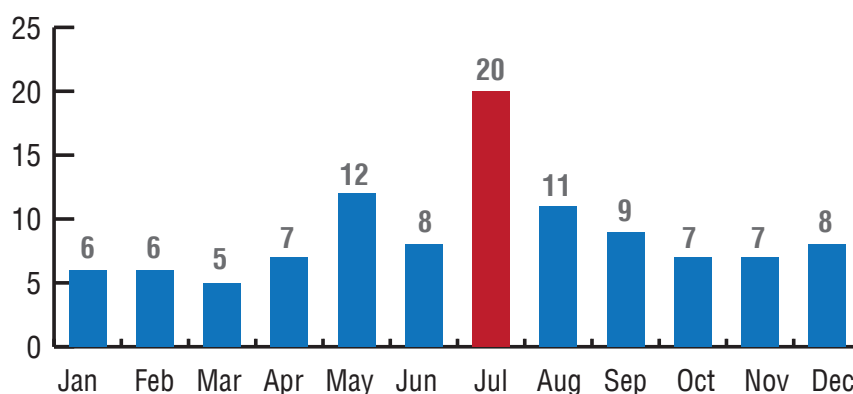
- Vehicles and machinery (52%).
- Livestock (19%).
- Falls from height (10%).

But we need to look deeper to identify the root causes.

Most fatalities and serious injuries involving vehicles and machinery can be traced back to poor maintenance of braking systems, mismatch of equipment, operator error, poor yard control/management, or simply fatigue.

Clearly, ensuring the correct machinery is used for the job, that machinery is maintained properly, that pedestrian movement in yards

Figure 1: Average farm workplace deaths in Ireland over 10 years.



is controlled and that the operator is fully competent and fit to do the work will go a long way in preventing such injuries and deaths.

Farmers and contractors should not underestimate the impact of excessively long working hours. Long hours can lead to long-term imbedded fatigue and mistakes that would not otherwise happen.

Farmers and contractors must consider the risks involved in each activity on the farm and put measures/controls in place to eliminate or control these risks.

Code of practice

An easy way to identify these risks

and appropriate control measures is to use the Farm Safety Code of Practice Risk Assessment document.

The Code has dedicated pages on harvesting and slurry spreading, which are particularly apt at this time of year.

While the operators of tractors and large machinery are obviously at risk, so too are those living on the farm, particularly very young children or senior members of the household.

Time spent reducing or eliminating risk is a small cost when balanced against the unimaginable grief which death or injury to any family member will cause.

Farm Safety Week 2022

Farm Safety Week 2022 takes place from Monday 18 to Friday 22 July. Each day has a particular theme. The week is a combined UK and Ireland event and is co-ordinated by the Farm Safety Foundation UK (also known as Yellow Wellies) supported by the UK National Farmers Union (NFU).

In Ireland, the week will be co-ordinated by the IFA Farm Families and Social Affairs Committee. Teagasc will be sup-

porting the week by placing messages on its social media in line with the daily themes.

This year's themes are;

- Monday 18 – Launch with statistics on farm accident trends.
- Tuesday 19 – Childhood safety.
- Wednesday 20 – Farm safety champions, farm accident survivors.
- Thursday 21 – Respiratory health.
- Friday 22 – Mental health awareness.

The Green Cert: the benefits to students are more than financial

These graduates describe the huge amount of personal development and explosion of opportunities that occurred as a result of completing the Green Cert.

Mark Moore
Teagasc KT Outreach and Innovation.

James Maher
Teagasc Education Resource Specialist.

Frank Murphy
Teagasc Curriculum Development Unit.

Anne-Marie Butler
Head of Education, Teagasc.

A wide range of agricultural, equine, horticulture and forestry courses are available in Teagasc colleges at Kildalton (Kilkenny), Ballyhaise (Cavan), Clonakilty (Cork) and at the National Botanic Gardens/Ashtown (Dublin), as well as in three private agriculture colleges, Mountbellew (Galway), Gurteen (Tipperary) and Pallaskenry (Limerick).

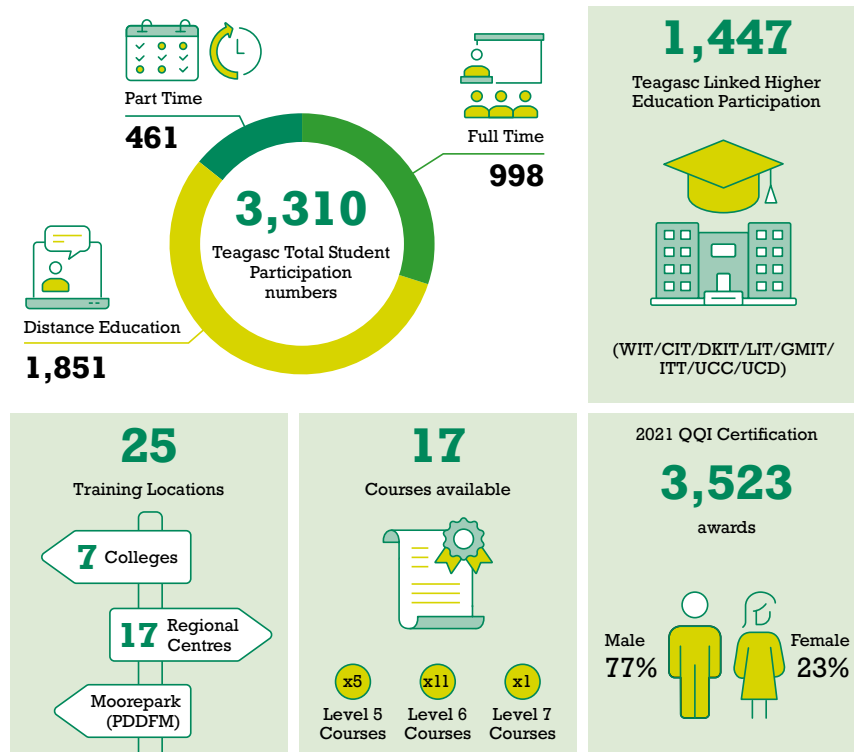
Both part-time and distance education courses are available at Teagasc regional centres, Teagasc colleges and at the aforementioned private colleges.

The majority of students who join these courses do so, at least partly, to attain the Green Cert, which provides them with 'qualified farmer' status.

This means they are entitled to exemptions on Stamp Duty and Capital Acquisitions Tax and have access to Department of Agriculture, Food and the Marine schemes (always check the most up-to-date terms and conditions). So, there are many compelling financial reasons to get your Green Cert.

But in this article, we want to highlight some of the non-financial

Education



reasons for getting your Green Cert, by meeting recent graduates in their home environment. All describe the personal growth they experienced. Many describe their increase in self-confidence as a result of completing the course.

Others point to the fact that the Green Cert opened a whole range of

options, not only in the workforce but also in further education, where there are links from the colleges to universities and technical colleges allowing students to progress to other courses.

All describe a learning environment where educators are informal and dedicated to helping all students succeed.



Dave Moloney with his dad Tim and mother Nellie. *Mark Moore*

Student: Dave Moloney, Kilanetig West, Ballinadee, Bandon, Co Cork.

Course: L6 Specific Purpose Certificate in Farming (part-time).

Dave says he was surprised to win the 2021 Teagasc Student of the Year Competition.* All of the students featured were finalists in the prestigious event, which is sponsored by FBD.

"I'll admit that when I was younger I was not a fan of the books at all," he says. "I left school at 16 and it was only when I started getting interested in the farm that I realised the Green Cert is a must."

Dave, who is now 34, contacted local Macroom Teagasc education officer Patrick Flannery and started the course, which involved one day per week and one evening in 2019.

"The group of 15 students got on really well together," says Dave. "If you have a passion for agriculture and farming, you're going to be interested, but the course deliverers do make the content interesting."

"I was always picking up something to use on the beef farm at home. I loved the practical work at the college – weighing and assessing the

weights of cattle." Dave says he buys in calves, yearlings and stores. Once finished, they go to the ABP factory in Bandon.

"We have everything from Belgian Blue to Speckled Parks, though Hereford and Angus are the most common. We aim to change to a system where some animals are ready to go to the factory each month."

"It wasn't anything like school," says Dave. "I never thought exams and paperwork were my strongest suit, but I really like the Business

Course and the Communications in the Green Cert. The teachers were not pushy, but explained things really well."

Dave says he finally decided to join the course when his fiancé said she would do a course in her profession at the same time. "I'd say if you have an interest in farming definitely do it," says Dave. "My only regret is that I didn't do it years ago!"

*A huge number of Teagasc education staff and Therese Dempsey of Teagasc PR are involved.



Dave says that the Green Cert course really fed his interest in farming. *Mark Moore*

Course coordinator: Teagasc education officer Pat Flannery, Macroom.

"There is great support for students on the part-time course from both West Cork advisory/administration colleagues and staff at Teagasc Clonakilty Agricultural College," says Pat. "On the part-time course, you tend to have smaller groups, which allows for rich learning from each other and a good support network."

"It's a hands on course for hands on people, coupled with a good grounding in what's needed to farm. A feature of the part-time course is regular interaction with front-line advisors."

Maria Keane and her husband Padraig (below) place strong emphasis on work/life balance and operate a once-a-day milking system. \Mark Moore



Student: Maria Keane, Kilcormac, Offaly.

Course: L6 Specific Purpose Certificate in Farming (distance).

Maria says that despite coming from a dairy farm in Limerick, agriculture was never really on her radar.

"I studied psychology and music at the University of Limerick and then gained a post graduate qualification in accountancy."

Now married to husband Padraig, the couple are also in a business partnership and run their dairy herd in Co Offaly.

"The Green Cert gives you a great

foundation in agriculture," says Maria.

"I did the course by distance learning at Gurteen College and I found the course was flexible and accommodating. A lot of other students on the course had full-time jobs while they were doing the course.

"We would go in every month for skills training etc, which meant there was a good chance to chat and, of course due to Covid, there was a lot of teaching on Zoom."

Maria developed a great interest in the breeding side of the business.

"I love working with figures and



spread sheets," she says.

"I like studying the traits of the various bulls and how they complement our herd."

In collaboration with Padraig, Maria chooses Norwegian red bulls and others to use on their herd. Their breeding company supplies straws for bulls that may be less well known in Ireland. "I thought the course was brilliant," concludes Maria. "As well as technical teaching, we did a lot on the business side and we try and balance our activities so that we can reduce stress for all our stakeholders and achieve a good work/life balance."

Course coordinator: Melissa White

"Students must already have a Level 6 Major Award to apply for the course. Learning is a blended mix of online and typically one day per month onsite, with a focus on practical skills. There is

less contact time on this version of the Green Cert. The student is expected to carry out self-directed learning in their own time.

"Students come from a wide variety of backgrounds, which adds to the learner

experience. There is a good support network and as with all education, active engagement is key to success on the course. We aspire to build students' confidence and encourage each student to reach their full potential."



Dominic White with his dad, also Dominic, run a business trading Connemara ponies in Ireland and abroad. **Mark Moore**

Student: Dominic White, Rathkeale Co Limerick.

Course: L6 Advanced Certificate in Equine Breeding (Stud Management).

Following his Leaving Cert, Dominic joined the Level 5 course in Stud Management at Teagasc Kildalton College in 2019.

"I always wanted to have a career which wasn't heavily office based and I had a strong interest in horses and getting the Green Cert, so the Stud Management course at Kildalton seemed ideal," says Dominic.

"Within several weeks of starting the course, we were out on placement two days a week. I was at the Charel Stud near Carrick-on-Suir, where I learned a huge amount from the staff and owner Vanessa Teehan-Rouzier.

"There are 54 stables with two sand turnout arenas, a covered horse walker, lunge ring and fully railed paddocks, so it is a first-class place to learn about all aspects of stud management."

Dominic progressed on to the Level 6 Stud Management course, where he says there was a good balance of classroom work and skill development.

"At Kildalton, we could do assessments on a range of topics including identifying ailments or Stud Management (managing a stud book) or

improving your skills at handling horses," says Dominic.

Even though Dominic had a lot of prior experience with horses, he says: "You'd know what to look out for a lot more after doing the course. Overall, I thought it was unbelievable and I'd recommend it to anyone with an interest in horses who is willing to put the work in. The lecturers were always keen to help and my confidence grew as a result of completing it."

Since graduating, Dominic works in partnership with his father Dominic senior, buying foals for National Hunt and selling them at three years old. The biggest part of their business is buying Connemara ponies across Ireland and selling them to a range of countries, including the UK, France, Germany, Belgium, Switzerland, and the US.

"You're not only evaluating horses and working with buyers and sellers," says Dominic. "You need to have



Dominic says each pony has its own individual personality. **Mark Moore**

excellent vets and transport professionals to make the business work. The Kildalton course really gives you a solid foundation for all of that."

Course coordinator: Rosemary Gaffney

"There are two equine specialisms on offer at Level 5 and Level 6 - Equitation (riding) and Stud Management. Students tend to have a mix of backgrounds and experience, which adds to the learner experience.

"We have a great network of top names in the industry for Stud Manage-

ment PLP, where students get hands on experience and responsibility to manage horses in different situations.

"Courses are for everybody from all backgrounds with an interest in working in the horse industry.

"Application involves an interview and a practical assessment. There is plenty of demand in the industry for good graduates."

Student: Cliona Beirne, Hillstreet, Carrick-on-Shannon, Co Roscommon.

Course: L6 Advanced Certificate in Agriculture (Dairy Herd Mgt) Mountbellew College.

Cliona happily admits she wasn't sure what she wanted to do after her Leaving Cert. She enjoyed English, Ag Science and History, and even considered becoming a paramedic. She decided to go to Mountbellew and complete the Green Cert. Coming from a beef farm, she decided to focus on sheep in year one and dairying for the Level 6 in year two. She started the course in September 2019.

"Year one wasn't too heavily affected by Covid, as we were out on placement in February 2020. There was much more online teaching during the second year.

"What I loved about being in college was that you would be learning about measuring grass in the morning and you would be in the field in the afternoon putting it into practice. The combination of theory and practice made it very easy to learn. You were constantly picking up skills that you could apply on your own farm.

"I also really liked the technology and business aspects of the course, the fact that you could use tools such as the Teagasc Profit Monitor to compare your profitability and use cash flow budgets to help predict how the business would progress in any year.

"The teachers didn't just deliver a topic and move on to the next one. If a student or the class was struggling with something, they would go back over it until everyone was happy. The teachers would constantly keep in touch with students to ensure they were making progress.

"Students in the college were super-friendly and there was plenty of mixing of distance and full-time students."

Cliona decided to progress on to the BAgSc course in UCD after finishing the Green Cert. A classmate at UCD is

Cliona Beirne says that during the Green Cert course, she gained theory/knowledge but also practical farming skills.

Mark Moore



Saoirse McGovern, who completed a Green Cert at Teagasc Kildalton College.

Even though Cliona could have gone to UCD directly after the Leaving Cert, she says she is glad she went to Mountbellew.

"Doing the Green Cert was a great experience and was a way to ensure I was interested in agriculture," she says. "Also, it helped me to build confidence and become more outgoing than I might have been coming direct from secondary school."

Course coordinator: Rita Hughes

"On the full-time course, you have Level 5 – year one – foundation of a broad range of knowledge and skills. With Level 6 – year two – which is the Advanced Certificate in Agriculture, possible specialisms include dairy/drystock/machinery and crops or mechanisation.

"You have more contact time on the full-time course. Students tend to be school-leaving age from mixed farming backgrounds – you don't have to be from a farm – you just need an interest in farming. The Practical Learning Period is on host farms, which is a very effective learning experience."

Cliona and her father Tommy. The family operate a drystock farm in Co Roscommon.

Mark Moore



Student: Francis Hewitson, Kildarragh, Dunfanaghy, Letterkenny, Co Donegal.

Course: L6 Advanced Certificate in Forestry.

"A meeting with Donegal forestry advisor Steven Meyen was where I got the idea of applying to do the Green Cert in forestry at Ballyhaise College," says Francis.

"We have some forestry at home and Steven came out in connection with that, but I got talking to him and he said the course would give me a good mix of theory and practical skills, such as tree identification, chainsaw, and machinery work."

Francis says he really enjoyed doing the Level 5 forestry course at Ballyhaise and decided to follow up with the Level 6 at the college. Further progression is possible.

"If you do well, there's the possibility to continue on and do Level 7 and 8 courses at the Waterford Institute of Technology," he says.

"You can go back to that within five years of completing the Level 6," says Francis, who is currently working with a forestry company on all aspects of forest establishment and harvesting.

Francis had work with the contrac-



Francis Hewitson says the Green Cert in forestry, which he completed at Teagasc Ballyhaise College, opened up a range of job opportunities. \Clive Wassoon

tor, Stewarts, while on placement.

"Many of the forestry students are offered jobs by companies they work with on placement," he says.

"The forestry students at Bally-

haise are a relatively small group of about a dozen," say Francis.

"Safety is vital in forestry and as well as following precautions, students are always looking out for one

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Francis particularly enjoys the machinery side of forestry. \Clive Wassoon

another. There's a great team spirit as a result.

"Because Ballyhaise has its own mature forestry, we got to do a lot of practical work, harvesting and mov-

ing timber. I love the machinery side and of course, and they have state-of-the-art equipment such as the John Deere forestry machinery simulator. "I'd describe doing the Green Cert

in forestry as a real gateway to a load of possibilities.

"If you want you to, you can reach almost any job you want in the industry."

Course coordinator: Linda Coughlan
– Teagasc Ballyhaise

"There is a shortage of skilled workers in the industry, so graduates have no problem gaining employment," says

Linda Coughlan.

"Students gain skills such as ATV operation, planting, weeding, formative shaping, high pruning and timber measurement, which are immediately relevant to the workplace, but students

can also progress to other higher education forestry courses.

"We encourage students to travel and broaden their horizons and we have links with colleges for international exchange," she says.



Schedule of College Open Days

Autumn 2022

Open Day Date/Time	College
Wednesday 05 October 2022 10.00am to 12.30pm Tours on-going	Mountbellew Agricultural College, Mountbellew, Co Galway, H53 WE00 Phone: 0909 679205 Email: admissions@mountbellewagri.com
Friday 07 October 2022 10.00am to 1.00pm <i>Advanced Booking is Essential</i>	Teagasc, Ballyhaise Agricultural College, Ballyhaise, Co Cavan, H12 E393 Phone: 049 4338108 Email: ballyhaise.college@teagasc.ie
Friday 7 October 2022 11.00am to 1.00pm Tours on-going	Teagasc, Clonakilty Agricultural College, Darrara, Clonakilty, Co Cork, P85 EK80 Phone: 023 8832500 Email: clonakilty.college@teagasc.ie
Friday 07 October 2022 Tours start at 10.00am & 11.00am	Teagasc, Kildalton College, Piltown, Co Kilkenny, E32 YW08 Phone: 051 644400 Email: kildalton.college@teagasc.ie
Thursday 13 October 2022 12 noon to 3.00pm Tours on-going	Teagasc, College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin 9, D09 VY63 Phone: 01 8040201 Email: botanic.college@teagasc.ie
Friday 14 October 2022 10.30am to 12.30pm Tours on-going	Gurteen College, Ballingarry, Roscrea, Co Tipperary, E53 TP93 Phone: 067 21282 Email: info@gurteencollege.ie
Saturday 05 November 2022 11.00am to 1.00pm Tours on-going	Salesian Agricultural College, Pallaskenry, Co Limerick, V94 V8N3 Phone: 061 393100 Email: info@pallaskenry.com

Spring 2023

Open Day Date/Time	College
Wednesday 01 March 2023 10.00am to 12.30pm Tours on-going	Mountbellew Agricultural College, Mountbellew, Co Galway, H53 WE00 Phone: 0909 679205 Email: admissions@mountbellewagri.com
Friday 03 March 2023 Tours start at 10.00am & 11.00am	Teagasc, Kildalton College, Piltown, Co Kilkenny, E32 YW08 Phone: 051 644400 Email: kildalton.college@teagasc.ie
Wednesday 08 March 2023 10.30am to 12.30pm Tours on-going	Gurteen College, Ballingarry, Roscrea, Co Tipperary, E53 TP93 Phone: 067 21282 Email: info@gurteencollege.ie
Thursday 09 March 2023 12 noon to 3.00pm Tours on-going	Teagasc, College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin 9, D09 VY63 Phone: 01 8040201 Email: botanic.college@teagasc.ie
Friday 10 March 2023 10.00am to 1.00pm <i>Advanced Booking is Essential</i>	Teagasc, Ballyhaise Agricultural College, Ballyhaise, Co Cavan, H12 E393 Phone: 049 4338108 Email: ballyhaise.college@teagasc.ie
Friday 10 March 2023 11.00am to 1.00pm Tours on-going	Teagasc, Clonakilty Agricultural College, Darrara, Clonakilty, Co Cork, P85 EK80 Phone: 023 8832500 Email: clonakilty.college@teagasc.ie
Saturday 24 June 2023 11.00am to 1.00pm Tours on-going	Salesian Agricultural College, Pallaskenry, Co Limerick, V94 V8N3 Phone: 061 393100 Email: info@pallaskenry.com

For further information please contact the college of your choice or visit our website at www.teagasc.ie



Pathways to a Green Cert.

Full-time Teagasc Course	Part-time Agriculture Green Cert	Distance education	Progression to higher education
Successfully complete the Level 5 Certificate plus the Level 6 Advanced Certificate full-time courses in Agriculture, Horticulture, Equine, or Forestry.	Successfully complete the Teagasc Part-time Green Cert programme (which consists of the Level 5 Certificate in Agriculture plus the Level 6 Specific Purpose Certificate in Farming).	Successfully complete the Teagasc Distance Education Green Cert programme (For award holders) which consists of the Level 5 Certificate in Agriculture plus the Level 6 Specific Purpose Certificate in Farming.	Teagasc is a delivery partner with a number of Institutes of Technology/technological universities such as MTU, ATU, DKIT, GMIT and WIT, UCC and UCD. Currently, part of these courses is delivered by Teagasc. It is possible to progress through the Education Links scheme to these higher education courses where places are available.
In the Level 6 Advanced Certificate in Agriculture, students can specialise in Dairy Herd Management, Drystock Management, Machinery and Crops, and Mechanisation.			
Horticulture can specialise in Nursery, Landscape, Sports Turf Management, or Food Production.			
Equine students can specialise in Equitation or Stud Management.			
Courses begin in late August/early September and the academic year ends at the beginning of June.	Courses start at any time of the year. Contact your local college or Teagasc regional education centre.	Courses start at any time of the year.	
Full-time students tend to have recently left secondary school, with the exception of some horticulture students that may return as mature students.	Part-time students are over 23 years old. They tend to be either farming themselves or closely involved in the management of a farm. They may have an off-farm job.	Applicants need to have completed a higher Level 6 course before applying for this course. Students come from a wide range of backgrounds and experiences, which adds to diversity and the student experience.	Consult with each third level college to get more detail.
The Level 5 is one academic year. The Level 6 is one academic year	The part-time courses can have a duration of two – two and half years.	The distance education Green Cert duration is around 18 months.	
Courses contain periods of Practical Learning Periods (PLP) on host farms/units (from four to 16 weeks) which are a valuable learning experiences. This element of the course rates highly in student feedback surveys.	PLP for part-time students usually takes place on the home or nominated farm	PLP for Distance Education PLP usually takes place on the home or nominated farm.	These courses have an element of farm or industry PLP.

For more information, contact your local college or advisory office, www.teagasc.ie/education or the Teagasc prospectus.

How to apply

www.teagasc.ie/education/going-to-college/ (some courses such as equine and forestry require an interview as part of the application process).

Course fees

www.teagasc.ie/education/going-to-college/course-charges/

dairying

Lessons in attracting and retaining people

Flexible hours and good working conditions are key to attracting and retaining staff.

Martina Gormley
Teagasc Dairy Specialist,
Athenry



Labour availability is a big talking point among dairy farmer employers and has been for several years. A significant proportion of dairy farms have now moved beyond the owner-operator model due to increased scale, and family labour in many cases is not sufficient to fill the gaps.

Finding and retaining good staff is a key challenge to sustainable dairy farm development. The focus must be on what we can do to attract people to work on dairy farms. With this in mind, it's important to look outside of agriculture and see what other businesses are doing to meet this challenge.

Eugene and Dymphna Sharkey run a convenience store retail business in Tuam, Co Galway. Similar to dairy farming, the business operates on a seven days a week, 52 weeks a year basis. Early starts are a feature of each day. To meet labour demand, the Sharkeys employ six people full-time plus part-time staff. "We have been in business since 2011 and finding staff has always been a challenge," says Eugene.

"Over the years, we have learned that flexible working hours, pay, giving responsibility and a good working environment are the four big factors to recruiting and retaining staff."

He added: "We do our best to work around peoples' commitments outside of the job. We facilitate a wide

range of working hours. The business is open from 7am to 11pm. We have staff that work from 6am to 2pm, 10am to 6pm and 3pm to 11pm etc.

"By having this menu of hours, we widen the pool of potential people to work in the business. We offer a mixture of hours for both full-time and part-time people.

"We use a WhatsApp group and if anyone needs to change hours, we find that WhatsApp is the easiest way to make that change.

"We have some students who play sports. They tell us their fixtures in advance and we work around them. It's the same for students in college. They send us their timetable and we work around this when scheduling their working hours.

"We know our busy times by season and day at this stage. Therefore, we adjust the rota to add an extra hour here and there when needs be. We are trying to get the balance right where there is just enough work and people aren't stressed or idle too much either."

The couple says that pay is important, to a point, and they have reviewed staff rates, particularly with the cost of living increasing. "We feel it's important to acknowledge this," says Dymphna.

"Sometimes the emphasis can be all on pay, but we find that pay alone will not give you good staff retention."

Continuing, she said: "It's a family-run business and having a good working environment is important to us. Small things like making staff a cup of coffee in the morning and small tokens here and there we feel is



important to show our appreciation."

"Giving responsibility is something that we are working on. It is easier now that we are established, but we are definitely delegating more and taking more regular time away from the business. We have worked hard and set up a good business with good structure and standards and now are in a position to delegate more.

"We get the big jobs like stocktaking, ordering, analysing reports, pricing and staff rotas done during the week and this means that the basics only need to be done at the weekend. This works well for us to take some time off at the weekends and also means less pressure for staff."

Can these lessons be implemented on dairy farms?

Fergal Keane from Moveen, Kilkee, Co Clare, works on the dairy farm of PJ, Carmel and Kevin Murray. After completing the dairy diploma course at Pallaskenry Agriculture College in May 2019, Fergal started working with the Murray family.

"Last year, I worked full-time with the Murrays in spring and then it was mainly milking for the rest of the year. If they needed a hand with vaccinating or moving stock, I would do a few extra hours.

"I am helping with the suckler farm at home, so flexibility is important to me. If I need to go home to calve a cow in spring, there is no issue. We discuss the week ahead and if they need extra help outside of milking, I know a week in advance so I can plan this around the jobs at home.

"If I was working in a nine to five job, I wouldn't have that flexibility to help out with the farm at home during the day."



Eugene and Dymphna Sharkey. \Ray Ryan

Fergal says location is important too. "I am a neighbour of the Mur-rays, so there is no time taken up travelling to work. I wouldn't mind a 30-40 minute drive, but after that, the travelling time would add up and this would leave less time for the farm at home.

"The facilities are good here, which

is definitely a help with nine rows of cow per milking. This means I don't spend too long milking.

"Milking starts at 7.30 in the morn-ing and there is flexibility here with the evening milking time. If I need to finish up earlier, there is no issue with bringing the cows in that bit earlier.

"Right now, this employment is working well for me. I know I am guaranteed enough milkings to give me a wage, plus some additional hours now and again if I want them.

This arrangement gives me a wage and time to develop the farm at home. I am also learning and each week I learn something new on this farm."

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Research* has found eight main criteria that employees want from employment.

1 Flexible work hours

Dairy farmers can offer a greater range of flexible working hours for their employees. This is not always ideal for employers, but to find and keep quality employees, farmers are finding ways to make this work.

2 Limited weekend hours

Some farms are now offering full-time employees every weekend to every second or third weekend off. Part-time employees can play a major role in getting the milking done at the weekend. Aim to have all the bigger jobs done during the week so that the weekend work is mainly milking.

3 Higher than average pay

Farms, like any other business, are giving pay increases for full-time employees who are an asset to the business. Ask yourself - is this person worth an extra Euro per hour? Also, for employees who carry out milking on

dairy farms, the pay per hour can be well above the average pay.

This makes milking very attractive, especially for part-time employees where weekend work suits best.

4 Varied work

Farmers delegating responsibility can give employees job satisfaction and confidence. Delegating responsibility should be given in small amounts at first.

5 Training and development opportunities

Having employees shadow the employer for the first week is key to giving them the right start. Begin by delegating small tasks and build on this over time. Even if the employee has milked before, they still need training, as they have never milked in your parlour before.

6 Feedback and appreciation

A simple thank you and acknowledgement of a job well done, and even an outing at Christmas time is all

that's required. Seeking feedback is something that is not too common on dairy farms. Employees need to be asked for feedback and maybe asked a few times in order for them to feel comfortable.

7 Career development and mentoring

Knowing your employee, and making it your priority to find out what their ambitions are, is very important for staff retention.

8 Enjoyable environment/good facilities

Some of the improvements may be adding in more gates to separate animals, a manual drafting facility, or more lighting around the yard. Having an ideas form filled up every four months can work well where it is standard to give honest feedback. It's up to the employer to question the ideas and prioritise what gets done and when.

**Nettle et al. (2011)*

Summary

Many similarities can be drawn between Sharkeys' retail business and a dairy farm when it comes to working conditions. The tradition of working six days per week as an employee on a dairy farm has changed over the last few years.

The Murray farm is an example of where offering a set number of milkings

plus some additional hours, if required, is working well for their employee Fergal, who wants time to do other things during the day. Every second or third weekend off is also becoming more common. The Murray farm shows us that dairy farms can offer flexible working hours to attract and widen the pool of potential employees.

Similar to the Sharkey business, farm-

ers are creating their own workforce strategies and finding that employees are developing skills appropriate to run the business.

In turn, this means farm owners can take more regular time away from the farm with confidence that the farm runs more smoothly and employees develop ownership and commitment to the performance of the farm.



Building a brand in the west

To improve returns, farmers need to gain 'market power' by creating brands which reflect the true value of what they produce. Ólas Hill Farms is a great example.

John Noonan*
Teagasc advisor, Westport.

When 40 sheep farmers from the Mayo areas of Tourmakeady, Louisburg, Ballycroy, Newport, and Achill came together in 2004, their aim was to improve the quality and marketing of their iconic Mayo Blackface breeding stock.

The premier sale became one of the leading sheep stock sales in the country. A sign of their growing success was the ever increasing number of male Mayo Blackface lambs not required for breeding.

From the start, the fledgling group of leading farmers looked at developing markets for the male lambs, working with various factories and Teagasc researchers, developing the product in terms of weight and cover of saleable lambs. By 2021, the group, now expanded to a membership of over 400, was sending over 30,000 lambs to Kildare Chilling.

The group has had a partnership with Kildare Chilling since 2014.

General manager Seamus Finnucane praises the "universal lamb" from Mayo as it fits into many markets, with the majority going to the Nordic countries as well as Germany and France.

Now, the group, along with Kildare Chilling, Bord Bia and Mayo County Council, are creating a brand for Mayo lamb, calling it 'Ólas Hill Farms'.

Seamus McMenamin, Bord Bia sheep sector manager, says: "It's a standout product that is more slowly and naturally produced. The sheep spend 90% of their lives on hill sides, making it the closest you get to organic (without being organic) and that really appeals to consumers' desires for sustainability and high welfare. The product itself is unique in its taste texture and quality."

John McLoughlin, Knockbreaga Newport, farms 300 Mayo Blackface ewes. John is the third generation of his family on the holding, comprising of one-quarter enclosed land and three-quarters commonage on the Owenduff Nephin mountain range in west Mayo.

"Our stock reflects the type of land and what it is capable of carrying, with the sheep spending most of their time on the mountain," says John.

Ewes are mated in mid-November, returning to the hill after a month with rams, and remain there until late March, when they come home to lamb down.

After lambing, twin lambs and lambs born to two-year-old hoggets remain on the enclosed land and the remainder go back to the commonage.

At shearing in late July, lambs are weaned, with replacement ewe lambs returning to the mountain, spending more time with their mothers and ensuring they are "hefted" on their specific area of the commonage. They are weaned at mating time.

In 2021, John had a weaning rate of 0.9 lambs sold/ewe to the ram. Meal usage worked out at 40kg/ewe, with the majority of this used in finishing the male lambs.

The remainder of John's lambs were sold in mid-March at 40kg liveweight, helping to fulfil the aim of supplying lamb all year around to the factory.



John Noonan and John McLoughlin.



"Farming commonage is a community activity," says John. "It's not an easy job to do solo and I rarely go to the mountain alone."

The neighbours work together, as did their parents and grandparents, building knowledge and experience that is invaluable in times of fog and poorer weather on the mountain.

After weaning, male lambs are finished on aftergrass and some meal for smaller ones.

"The producer group gives greater access to the market place and allows for better drafting of lambs," says John.

"The group's transport is efficient on loading and facilities. For a relatively small producer, the benefits of being able to have lambs transported to the factory is huge."

Seamus and Noreen Hughes farm at Derryveeney Tourmaceady and run a flock of 170 Lanark ewes along with 12 Connemara mares and the resident stallion, Melodys Boy.

Ewes are mated starting October 26 for six weeks, then go to the mountain until end of January, when they return for scanning.

Doubles are kept on enclosed land while singles go back to the mountain until the second week of March, when they come back to 'green' lowland. They are not fed any meal pre- or post-lambing. The figure for lambs

sold/ewe to the ram was 1.35 in 2021.

Doubles and triplets are fed one pound/head of meal from early March and are fed after lambing at the same rate until the end of April, when enough grass becomes available.

After weaning in early August, lambs are drafted to kill with a carcass of 17-18kg, with triplets and smaller lots all slaughtered by late January. The figure for meal fed per ewe was 18kg in 2021.

Seamus says: "There's a good price and a definite market for older ewes, which at one stage would have to be nearly given away – there's a value on them now."

John O'Donnell farms 90ac of heavy clay soil at Gurteen Westport, carrying a flock of 220 Belclare cross ewes with 390 lambs at foot.

He normally lambs during the first week of March, but last autumn decided to sponge 40 ewes to supply him with some early lambs for the group and also provide him with strong replacements for the autumn.

"I am moving away from carrying hoggets over winter, as they are not



John Kennedy, sheep manager at Kildare Chilling, with Pat Chambers, Micheal Conway and Tom Gill.

justifying the cost involved," says John.

Ewes are housed in mid-November, and fed good-quality silage over winter.

Meal feeding starts three weeks pre-lambing, with feeding continuing for a month post-lambing outdoors. In 2021, 45kg of meal was fed per ewe.

Lambs are finished off grass, with drafting starting normally in early June at a liveweight of 46kg to get 20kg carcass. John's ideal cross is the Belclare ewe crossed with a Suffolk ram.

Meal is used on the last group of triplets and late lambs in mid-October.

"The group provides a great service in terms of easy access with booking, no waiting or travelling for hours, good price and great kill outs," says John.

"The transport provided by Gill transport is an added bonus for its quality and reliability."

Organisation is key. Administration of the producer group is managed by Breege Biggins and Josephine Kelly, who organise sales, book in lambs and deal with the day-to-day



Noreen Hughes, Josephine Pearse, Breege Biggins and John Noonan.

issues of managing such a large number of farmers' output.

"We liaise closely with the committee and the main organising farmers, namely Pat Chambers, Tom Gill and Micheal Conway, who are at the lorry at each loading, checking paperwork, ensuring numbers are correct and advising on presentation cover and weight to individual members," says Breege.

On a Monday morning, the farmers ring Josephine Pearse, who takes the bookings at the office in Ballinrobe. "Whether a farmer has five, 50, or 500 lambs, all are treated the same," says Josephine.

"The farmers say that a key benefit is that they have less time waiting around than if they were bringing the lambs to a factory themselves," says Breege.

The office then contacts Pat Chambers and tells him how many lambs are to be transported – if necessary, there could be several trips in one week.

On Tuesday afternoon, the animals are gathered onto the truck. Tom Gill ensures the animals are loaded correctly. Sheep are kept in their original groups, which makes it easier for the factory.

"Each farmer has a unique number and colour which identifies his animals – red, blue, orange, green or



Louis and John O'Donnell.

purple. Popular numbers are 1, 7, 11, or 10," says Breege.

Pat Chambers informs the farmers of the price in advance and brings the lambs from Westport to Kildare Chilling.

Branding

Branding the group's lambs as Ólas Hill Farms will give them an identity in international markets, showing off their credentials as healthy, green fresh and wholesome from the west of Ireland.

This will add value to the product, helping the west of Ireland shepherds to have a more viable and sustainable future.

"After a successful lambing season, the members of the Mayo Blackface Sheep Breeders Group are looking forward to the annual breeding sale on Saturday 25 September 2022 and to the factory lamb sale season over the next few months.

"The Lamb Producer Group are hoping for a good season, having rebranded the group as Ólas Hill Farmers in partnership with Kildare Chilling and Bord Bia to reflect the wealth of knowledge and tradition passed down through the generations of hill shepherds that goes into the production of lamb meat on the mountains in the west of Ireland," says group chairman John Joyce.

Look up Olashillfarms.ie for more information on the group and the lambs we produce.

**John Noonan is former group chairman and currently a committee member.*

sheep

Seven steps to maximise lamb performance on grass

Finishing lambs when concentrates are costly.

Michael Gottstein
Teagasc, Head of Sheep
KT Programme.



Tom Coll
Drystock advisor,
Teagasc Sligo Leitrim.



The outlook for lamb prices and demand is positive for the rest of 2022. One of the challenges facing farmers, however, is the dramatic rise in input costs.

Fertiliser, feed, veterinary medicines and fuel prices have all risen dramatically.

It is more important than ever for sheep farmers to reduce their reliance on concentrate feed when finishing lambs in the main growing season (April – October).

Let's look at the factors affecting lamb performance from grazed grass.

1 Nutrition

Leafy grass drives performance. From June onwards, it becomes more difficult to manage grass. Ideal grazing heights are between 6cm and 10cm. Long or stemmy grass will reduce performance.

It is important that paddocks/fields are fully grazed out (by dry ewes or suckler cows) or topped down to 4cm after each grazing. This will ensure good-quality grass in subsequent rotations.

2 Fertiliser

Fertiliser is really expensive this year, but is still good value when compared to replacing grazed grass with concentrates.

It is important to use sufficient fertiliser to grow enough grass to

feed livestock and to maintain grass quality.

'Little and often' applications of fertiliser nitrogen will help to keep grass leafy. Protected urea fertiliser offers the best value per kilogram of nitrogen.

3 Internal parasite control

Stomach worms are the main parasite causing ill thrift in lambs. However, most sheep farmers do not know which anthelmintics (wormers) are still effective on their farms.

Where the anthelmintic used is no longer effective, animal performance will be poor, as the lambs will still have a parasite burden after treatment. Make sure the product you are using is effective against the worms in your sheep.

The only way that to do this is by taking a faecal sample after treatment to ensure that all the worms have been killed.

The time frame for taking a faecal sample post-treatment is seven days for a yellow drench and 14 days for a white or clear drench.

A positive egg count indicates that the treatment has not worked and demands further investigation.

4 Lameness

Lame sheep are too common. Lame sheep don't perform, lose body condition, and are in great discomfort.

No amount of feed is going to prop up the performance of lambs suffering from scald or foot rot.

Segregate lame sheep, identify the cause of their lameness and treat it. They should only re-join the flock once the disease has cleared.

Routine footbathing of the flock will help prevent healthy sheep from going lame.



5 Mineral deficiency

Cobalt deficiency is the mineral deficiency that most commonly affects lamb thrive on Irish sheep farms. Cobalt is an important mineral used by the bacteria in the rumen to synthesise vitamin B12. On cobalt-deficient farms, lambs will need a continuous supply to ensure optimum thrive.

Oral cobalt supplementation with 10-15ml of cobalt sulphate solution (six heaped teaspoons to a gallon of water) every two to three weeks post-weaning should rectify any such deficiency.

There is also the option of using boluses, but these are much more expensive and in some cases, have not undergone verification of their effectiveness in rectifying cobalt deficiency in sheep.

6 External parasite

Pour-on insect growth regulator gives excellent control against blowfly strike.

If biting lice or sheep scab are af-



Enda Finnegan farms sheep and cattle at Ballyeasin just outside Templeboy in Co Sligo. \Brian Farrell

fecting sheep, then plunge dipping with an approved product is the best option.

Different products will have different withdrawal periods, so it is important to bear that in mind when

choosing a particular product, especially for 'short keep' lambs.

7 Creep-feeding concentrates
Concentrates play an important role in helping to finish lambs.

However, concentrate supplementation carries a high cost and should be used judiciously and targeted at finishing groups, or used in October when performance off grass is naturally restricted.

Case Study – Enda Finnegan

Enda Finnegan farms sheep and cattle at Ballyeasin, just outside Templeboy in Co Sligo. This year, 150 ewes and 25 ewe lambs lambed in mid-March and will all be weaned in late June at a weaning rate of 1.6 lambs per ewe joined, including ewe lambs.

The farm is laid out in a paddock system at a stocking rate of 10 ewes per hectare, which means that each hectare is carrying the equivalent of 10 ewes and 16 lambs (four ewes and 6.4 lambs per acre).

The ewes and lambs graze in paddocks. The sheep are moved every three days and paddocks are removed as baled silage when they become too

strong for grazing. After weaning, the lambs graze ahead of the ewes.

This means that the lambs have access to the best grass and the ewes clean up the grass left behind.

"This makes it easier to have good-quality grass ahead of the lambs at all times," says Enda.

Some concentrate feed is offered to help finish lambs and ensure that there is sufficient grass for the ewes at mating in October.

After weaning, lambs are weighed and a finishing group is set up (lambs greater than 38kg). These lambs are offered 0.4kg/head per day to improve performance and fat cover.

"As we draft lambs, more are selected from the grass-fed group (over 38kg) and put into the finishing group," says Enda. "We plan to have all lambs sold to the factory by late October."

Enda uses faecal egg counts to determine when lambs need to be treated for stomach worms. Lambs are sampled every two to three weeks and treated when the egg count is seen to be rising rapidly or exceeds 500 eggs per gram.

"After treatment, we take faecal samples to ensure that the treatment has worked," says Enda.

"Throughout the grazing season, all sheep are routinely footbathed to keep on top of lameness. Lambs get a cobalt drench every two weeks post-weaning, which normally coincides with collecting for drafting."

Making the transition to dairy calf-to-beef

Tommy Cox
Teagasc DairyBeef500
Programme



Farming on the banks of the river Shannon near Killaloe in east Clare, Michael Culhane is Clare's participant in the new Teagasc Dairy Beef 500 campaign. His farm consists of two separate blocks totalling 68ha.

The main block of approximately 52ha, which can be described as good-quality, dry, clay type soil, is around the farmyard. The remainder of the land is an out-farm with heavier, more challenging soil.

In the past, Michael operated a suckler-to-store/finishing operation. He made the full transition to dairy calf-to-beef in 2020.

"My reason for making the switch was the high cost of keeping the suckler cows compared to the price received for the progeny," says Michael.

"I also felt that a dairy calf-to-beef system would offer a more structured workload than calving sucklers."

Michael first tried out dairy calves in 2017, with the purchase of Aberdeen Angus calves from a number of different sources. These were later sold as stores.

Not quite happy with that system, Michael turned his attention to sourcing Hereford calves for a store system, but again, he was not quite happy with the outcome.

"In 2020, I got in touch with a dairy farmer in west Clare, who was breeding Belgian Blue calves from his dairy herd," says Michael. "I felt these were the type of stock that would suit the system. Working with the Teagasc Green Acres team, I



Michael Culhane says achieving high-quality silage is key.

decided that the best option would be to take all stock to finish."

This year, approximately 100 predominantly Belgian Blue and Angus cross calves were reared on the farm, 30 in the autumn and 70 in the spring. The plan going forward is to remain with these breeds and increase numbers to over 120 by increasing autumn numbers to 50.

"Converting to slaughtering everything off-farm takes careful planning and thought, with factors like cash flow and housing needing careful

consideration," says Michael.

"The two main systems in future will be a 21 month heifer system and a 24 month steer system. There will also be a cohort of Belgian Blues kept for a 28 month finishing system."

Increasing the number of times a year stock are killed on the farm will greatly increase cash flow, while the 28 month finishing system has the potential to take advantage of traditional, seasonal, higher prices. Table 1 shows animal performance targets for the systems.

Table 1: Animal performance targets for each finishing system.

Age of slaughter	Heifer 21 months	Angus steer 22-24 months	Autumn-born	Continental steer 24 months	Continental steer 28 months
Reared calf (kg)		90	90	90	90
After first season at grass (kg)		240	340	250	250
Turnout March (kg)		330	430	345	345
Liveweight autumn (kg)		490-510	580	525	525
Turn-out third season					595
Liveweight at slaughter		550-620	590	660	700
Carcass weight		280-310	305	355	385

Setting up the farm for calf rearing

Grassland management

High-quality grass is a key aspect of any successful livestock production system and this is particularly relevant in dairy beef.

Maximising the amount of quality grazed grass in the animal's diet over its lifetime will have a major impact on the productivity and profitability of the farm.

"Originally, the farm was laid out in large paddocks with only one water trough per paddock," says Michael. "In recent years, we have installed more water troughs and started to sub-divide paddocks."

Stock residency in paddocks has been greatly reduced. Stock reside in paddocks no longer than three days and then the paddock recovers for 21 days before being grazed again.

There are a minimum of seven paddocks for each grazing group and this allows for better control of grass, increased grass growth and improved animal performance.

Housing facilities

"In order to set up a suitable calf rearing area, we needed to renovate some existing buildings," says Michael. With the assistance of his local Teagasc advisor Conor Reilly, modifications to the original suckler cow buildings were identified, cubicles were removed and suitable calf penning erected.

"Important aspects of the design such as ventilation, air flow and floor slopes were given careful consideration to ensure a suitable environment for calf rearing," says Conor.

Automatic feeders were installed in the calf rearing area. "At the time, they were a significant investment," says Michael, "but I feel the investment is justified and will greatly assist with calf rearing in the future."

Animal health

As mentioned before, providing the correct environment in the form of housing and implementing strict biosecurity measures are important aspect of keep-

ing animals healthy. Another key factor is disease prevention and there is a strict vaccination policy on the farm.

"Calves are vaccinated against pneumonia and clostridial diseases, as well as getting an oral drench to prevent coccidiosis," says Michael. "Generally, calves arrive on the farm at three weeks of age.

"On most farms, calves would be vaccinated when they arrive on-farm, however we wait for a few days to allow them to settle in after their journey to Killaloe."

Parasite burdens are regularly monitored on the farm, with pooled faecal samples tested for infestations at regular intervals throughout the year.



Michael Culhane says the new system will give him better cash flow and a more manageable workload.

Table 2: Costs of setting up calf rearing facilities.

Shed renovations (removal of cubicles concrete floor).	€3,500
Penning and stock board.	€1,500
Automatic feeders (net cost).	€8,000
Total	€12,000

Growing need for oilseeds

Supply is down and demand is growing, so there are lots of opportunity with this proven crop.

Ciarán Collins
Teagasc tillage specialist.



John Pettit
Teagasc tillage advisor,
Wexford.



The area of winter oilseed rape is expected to increase this autumn, primarily due to the substantial rise in the price of oilseeds. Other attractions are the potential nitrogen savings when good growth and development is achieved in the autumn/winter period, grass and other weed control options and significant yield increases in following crops.

The five year average area of winter oilseed rape (2017-2021) is 8,900ha, but estimates from DAFM indicate that the area increased significantly for the 2022 harvest to 14,500ha.

The average yield of winter oilseed rape has remained consistent over the last five years at 4.4t/ha, with some growers regularly achieving 5t/ha.

Improved varietal traits, such as for pod-shatter resistance, phoma and light leaf spot resistance and turnip virus yellows resistance, have contributed to the consistency of today's winter oilseed rape crops.

Winter oilseed rape has a high nitrogen requirement (225kg/ha at index 1) but significant savings can be achieved through good canopy development in the autumn/winter period.

Target Green Area Index (GAI) at flowering is 3.5, but savings on nitrogen (€750/t) of €277/ha are possible in a crop with a GAI of 2.0 compared to a small crop with a GAI of 0.5.

Brassicacae are very efficient users of nitrogen and growers are increasingly incorporating organic manures to help crop growth in the autumn.

Sowing oilseed rape at the optimum timing of mid- to late- august can be challenging during a busy harvest, but research carried out at Teagasc Oak Park shows oilseed rape can be successfully established using time saving min-till or strip tillage. Yields from these systems are comparable to plough-based systems.



Don Somers.

Regardless of the establishment system, timely sowing is crucial for canopy development and to realise the benefits of lower nitrogen application and reduce pigeon grazing.

Slugs and cabbage stem flea beetles are the most common pests in the autumn. The area of oilseed rape in the UK has reduced dramatically in recent seasons, due to insecticide resistance and an inability to control cabbage stem flea beetle.

While this has not been an issue in Ireland to-date, only using insecticides when thresholds are exceeded is vitally important.

Pigeons are a serious pest in the spring, but damage is less likely in large canopies.

Winter oilseed rape can be highly profitable in its own right, but profitability should be viewed across the entire rotation.

Yield increases in winter wheat after breaks for disease of up to 19% have been recorded in Teagasc experiments when compared to continuous wheat.

Don Somers, a Teagasc Signpost farmer based in Co Wexford, has grown oilseed rape for the last 17 years. Recent years have seen Don achieve more desirable yields, making the crop a much more attractive option to grow.

A contributing factor to more consistent yields is drilling crops earlier and applying organic manures to

produce crops that have a larger GAI in the spring.

Having a larger GAI in the spring makes it much easier to achieve the target GAI of 3.5 at flowering, particularly in years when pigeons are active or if there is poor growth in February and March.

Crops with a more significant GAI in the spring also offer a number of other benefits.

Such crops have the potential to capture more soil residual nitrogen during the autumn/winter period, reducing the threat to surface and ground water.

This also makes a contribution to profitability, since less nitrogen needs to be applied to the crop in the spring, thus reducing the cost of production.

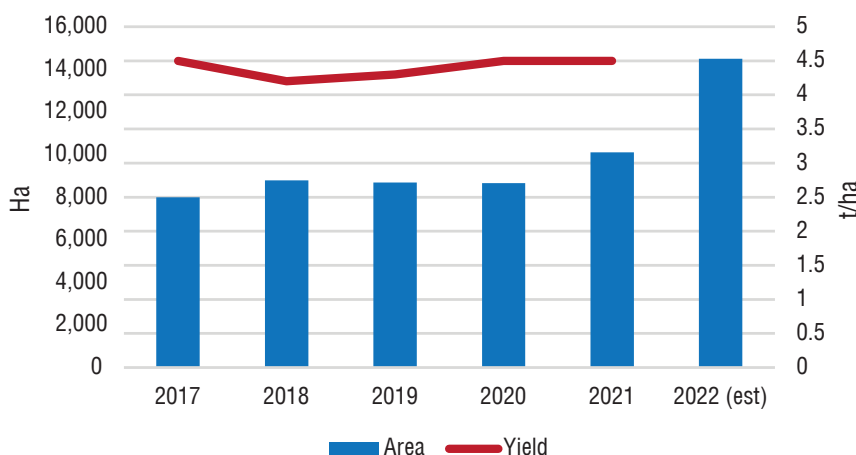
Don also applies the final split of nitrogen in liquid form – this enables nitrogen to be applied to the crop later.

Oilseed rape offers the farm a range of benefits. It enables the control of problematic grass weeds with alternative chemistry, preventing such weeds from becoming an issue on the farm.

Oilseed rape also helps to broaden both the drilling and harvesting periods, using labour resources on the farm more efficiently. The crop also helps to make a significant contribution to soil health.

Its deep taproot helps to improve

Winter oilseed rape ('17-'21) year area and yield.



soil structure and the incorporation of straw returns a significant quantity of carbon to the soil.

Don recognises that oilseed rape can present a number of challenges, however. Drilling it early can be challenging, since it can coincide with harvesting alternative crops.

Previous crops need to be harvested relatively early to enable the oilseed rape to be drilled, hence a bit of forward planning is required.

When using cover crops within the rotation, there is a need to be selective with species to avoid building

club root levels in soils and avoid particular cover crop species becoming problematic weeds within crops of oilseed rape.

Harvesting oilseed rape can be very challenging with unfavourable weather conditions and there may be a need to compromise on the crops moisture to ensure that the crop is harvested prior to the crop shedding seed.

The oilseed rape crop also requires an investment in machinery, in the form of a side knife and preferably an extendable table for the combine head.

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OSR: the research angle

Dermot Forristal
Teagasc, Oak Park.



Rotations: For most crop growers, adopting rotations improves profitability. Oilseed rape (OSR), along with beans, are key break crops in rotations, allowing a valuable disease break and additional opportunities for weed control.

Oilseed rape suits a wide range of soils and its sowing and harvest window doesn't clash with the main cereal crops.

Our current systems research in Knockbeg has shown that 'first' wheats in rotations yield 19% more than continuous wheat, but with considerable year-to-year variation.

Earlier work over eight years indicated an 11% yield increase. The current five course rotation, which include two first wheats (following OSR and oats), returns an annual margin of €200/ha more than continuous cereals at 2020 prices.

This benefit should be attributed to the break crops, even if it is delivered

in the following year. The evaluation of individual crop margins makes little sense when comparing rotations – we need to compare the performance of all crops in the rotation.

Table 1: Knockbeg research: break crop and rotation benefits.

First wheat yield boost	Six year average
Current research	19%
2011 research	11%
Additional annual margin for rotation	€208/ha

Nitrogen management: PhD candidate Shiva Rahimi Tanha has carried out in-depth studies of nitrogen (N) management systems in OSR over a three year period. Her key findings include:

- The canopy management approach of assessing crop N uptake and crop size (GAI) post-winter and calculating the fertiliser N needed based on these, is suited to our conditions.
- Crop N uptake and plant growth, measured as GAI post-winter are key determinants of fertiliser N.

•Soil mineral N measurement may be of less benefit in our milder, wetter conditions.

•In our climate and soils, more soil N becomes available through the season, resulting in a lower demand for fertiliser N, but this is difficult to predict.

Winter OSR is unique in its capacity to capture and efficiently use soil N over the winter period, which in certain seasons, can amount to 100kg of N/ha (cereals would be limited to approximately 30kg N/ha). This reduces environmental risk and greatly reduces the need for fertiliser N, allowing a more targeted approach to N fertilisation.

Crop establishment: Previous research has shown that winter OSR can be successfully established with a range of crop establishment systems, from plough-based systems to strip-till with 600mm row spacing.

These results will help support the production of oilseed rape and consequently give growers more options in adopting more resilient rotations.

Potato late blight – a foe for gardeners and farmers

Whether it's a couple of plants or a couple of acres, blight will find your crop.

Stephen Kildea

Plant pathologist, Teagasc Crop, Environment and Land Use Programme, Oak Park.



P*hytophthora infestans*, potato late blight, was a major contributing factor to what became the Irish Great Famine between 1845-1847. Rarely mentioned today, other than during the blight warnings issued by Met Éireann as part of their forecast bulletins, it nonetheless continues to have the potential to devastate potato crops.

In the 177 years since the famine, we have developed control programmes to limit blight's destructive potential. These programmes have been developed by improving our understanding of the disease and by adapting our systems to mitigate its destructive potential.

P. infestans can find crops like no other plant pathogen. It produces vast quantities of spores, which manifest as the white fluffy appearance that often is observed on the under surface of an infected potato leaf.

These spores are blown in the wind and land on susceptible leaves, where the spores germinate to release even more spores, with each individually going on to potentially cause infection. In damp and humid weather, this lifecycle can occur in the space of a few days. It's easy to understand how single infections in late autumn 1845 spread across the entire country in a couple of months.

So, in most summers, if no control programme is in place, almost all crops will get blight. Whether just a couple of pots or a couple hundred hectares, blight will find the potato plants.

Commercial growers are aware of the potential consequences of late



blight, as it is their business. Costly, weekly fungicide applications are often required from the point of crop emergence through to desiccation.

Growers take other steps to limit blight risk. They use certified, disease-free seed, they don't re-plant in the same field to prevent disease carryover, they'll manage previous crops' discards to limit potential infection sources and they'll intensively monitor crops to ensure any infection is rapidly identified and stopped.

These are the basic steps of integrated pest management (IPM), which is an essential part of modern potato production. But growers need help in managing sources of infection which are out of their control.

We ask that small-scale growers and gardeners, irrespective of the size of their plot, to beware of conditions favourable for blight, and if blight is present, to take action to ensure it doesn't spread further.

In recent years, Teagasc has been working with Met Éireann and Maynooth University to improve the late blight warnings issued throughout the summer. These predictions are now even more accurate and location specific (www.met.ie/forecasts/blight-forecast).

These forecasts help guide decisions on when to apply a fungicide. If you prefer not to use fungicides, the warning can be used to help identify when to inspect the plants (three to four days after a risk period).

Any infected plant material should be removed and destroyed in a manner that limits potential further spread, e.g by composting in a closed container.

Fortunately, widespread famine is no longer a threat in Ireland. But we have an obligation to protect the national crop against blight to avoid preventable loss of highly nutritious, and delicious food.

Green covers: get them in early

Plan now and the extra work after harvest will be more manageable.

Mark Plunkett
Teagasc tillage specialist.



Following the recent review of the Nitrates Directive, growers are required to shallow cultivate stubbles after harvest. If you have late harvested crops, you must establish a 6m buffer to protect any threatened watercourses.

Stubble cultivation or sowing of a crop must take place within seven days of baling straw post-harvest. Chopping straw, stubble cultivation or sowing a cover crop should take place within seven days of harvest.

In all circumstances, shallow cultivation or sowing of a crop must take place within 14 days of harvest.

Maintaining a green cover over the winter, whether it comes from natural regeneration or a sown cover crop, brings additional field work at harvest time, but there are many environmental, agronomic and economic benefits.

One of the primary benefits of an over-winter green cover is that it will take up any remaining nutrients after harvest, especially nitrogen. This will help reduce potential nitrate leaching over the winter.

Actively growing plants will improve soil structure and soil drainage, as well as protecting soils from winter rainfall and adding valuable soil organic matter over time.

Nitrogen recovery

A study carried out on the SignPost tillage farms in 2021, where a range of cover crops were sown across a number of farms, showed nitrogen uptakes of 10-64kg N/ha. The autumn of 2021 was very favourable for cover crops and they continued to grow right into October and November.

Figure 1 shows that for a cover crop sown in mid August, 54kg N/ha was recovered, while for the mid September, sowing date N uptake was reduced to 9kg N/ha.



Rye and phacelia sown on 29 August 2021.

Where stubbles were disked and natural regeneration established, 20kg N/ha was recovered.

This shows the importance of sowing date and N uptake by a sown cover crop. Reducing surplus N in the soil after harvest clearly reduces the risk of nitrate losses over the winter.

Different cover crop species have different abilities to recover N. For example, from the 2021 Signpost farm study, a late August-sown cover crop of rye and phacelia recovered 64kg N/ha (see above picture).

On the same site where wheaten straw was chopped, N recovery was reduced to 27kg N/ha. This shows that the straw utilised a proportion of the available soil N over the winter.

Research shows that between 0-40% of the N taken up by a cover crop over the winter will be available to the following spring cereal crop.

Crop yield

The earlier crops are sown, the more tonnes of fresh material they will produce. Figure 2 shows the effect of sowing date on tonnes of fresh material produced for three different sowing dates. Delaying the sowing date by one month reduced the fresh yield from 18.8t/ha to 2t/ha for the Glas mix (see photo on the next page).

It also showed that natural regeneration was better than a late-sown cover crop. Growing large cover crops will provide a larger volume of potential fodder where the crop will be utilised by grazing livestock.

Alternatively, incorporating cover crops into the soil will add soil organic matter and help improve soil health over time. Building soil organic matter is a very slow process, with good cover crops improving soil organic matter by around 0.1-0.2% per year.



Stubble turnip and forage rape sown on 15 September 2021.

Figure 1: Effect of sowing date on nitrogen uptake by standard Glas mix* and natural regeneration 2021.

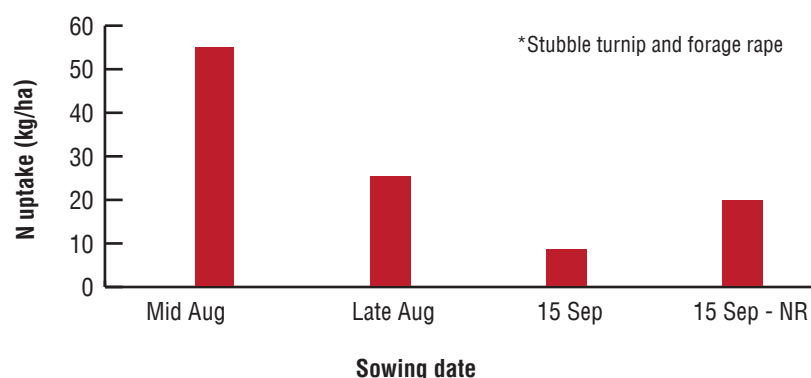
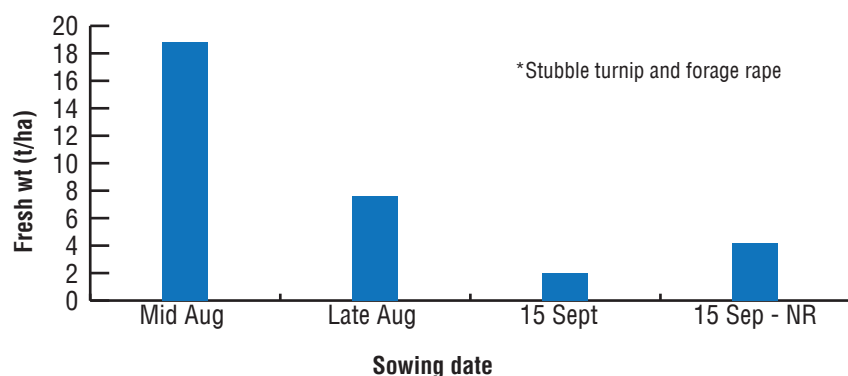


Figure 2: Effect of sowing date on dry matter production for standard Glas mix* and natural regeneration 2021.



Natural regeneration or cover crops?

Natural regeneration is the least costly option and meets requirements for a green cover over the winter. The levels of natural regeneration will depend on a number of factors, such as time of cultivation, the level of volunteer cereals in the field after harvest and their distribution across the field.

Depending on the soil's weed seed bank, shallow cultivation may be beneficial to help reduce the seed

bank. This will depend on weed types. In addition, over-wintered weeds could be adding to the weed seed bank. For example, weeds such as annual meadow grass or chickweed can produce multiple generations of seed in a season.

Natural regeneration containing volunteer cereals will create a 'green bridge' for pests and foliar diseases to the following crop.

These covers should be removed for a minimum of six weeks to break the

green bridge before establishing the following spring crop.

In recent years, there has been a growing interest in cover cropping due to the GLAS scheme.

In addition, farmers improving soil health and exploring alternative crop establishment systems such as min-till/direct drill to reduce labour and production costs have integrated cover crops into the farming systems.

When selecting a cover crop mix, consider seed costs and your crop rotation. For example, where you have oilseeds in the rotation, avoid brassica species such as mustard, radish, rape etc, as they are from the same family and can be a host for diseases such as club root. There are many reports in 2022 of club root in winter oilseed rape crops, which is associated with short-term brassica-type cover crops in the rotation.

Grasses or cereals are also an option, but in a cereal rotation they can be a host for both pests and diseases, plus potential volunteers in the following crop.

Phacelia is a good choice as it is unrelated to most common crops and is relatively easy to remove in spring. Legumes such as peas, beans, vetches and clovers have the potential to fix N and reduce the fertiliser N requirement for the following crop. Legume seed tends to be expensive and must be sown early to aid establishment.

Harvest time is obviously a very busy time of the year. Weather is also a major factor outside of our control and the requirement to cultivate all stubble fields at this time will add extra pressure. Therefore, it is very important to identify the most suitable green cover options for your farm as soon as possible.

Planning your labour and machinery requirements to carry out the field operations as efficiently and safely as possible will help ease the bottleneck.

How will your acres score?

You can help address the challenges to our water, climate and biodiversity by joining ACRES (Agri-Climate Rural Environment Scheme).

Catherine Keena

Environment specialist, Teagasc Crops, Environment and Land Use Programme.

If you are considering applying to join ACRES, you need to understand results-based payments. Advisors are currently delivering one-day courses under the Agri-Environment Training Scheme (AETS) to help prepare farmers for ACRES.

Results-based payments

The major difference in ACRES compared to previous agri-environment schemes will be the change from action-based payments to results-based payments, which is proposed for species-rich flowery grassland (LIG) and for uplands.

The Hen Harrier Project, Pearl Mussel Project, Burren Programme, Wild Atlantic Nature LIFE IP and REAP already deliver results-based payments. If you are currently involved in the GLAS actions LIPP (Low Input Permanent Grassland) or THM (Traditional Hay Meadow), you need to assess your fields now to see how they will score in ACRES.

Which type of grassland do you have?

- Flower-rich grass fields – will be suited to LIG (Low Input Grassland) with the payment rate based on how it scores, up to a maximum of €450 per hectare, including the bonus of €50 for late-mown meadows.
- Grassy fields – little or no ryegrass with no flowers, which will be more suited to action-based extensive grassland with a proposed payment rate of €200 per hectare.

Assessing a field for LIG

The number of indicator flowering plant species is monitored. Not all

flowers are relevant. Those found in agriculturally improved grassland, such as chickweed or dandelions for example, don't count.

A very high number, over 16, would gain the highest score of 20. Four or less gets a zero score. The level of cover of these indicator flowering plants is also important. Where they are dominant, or over 50% of the field, the maximum score of 25 is awarded, but if they are rare or only 5% of the field, no marks are awarded for cover.

Vegetation structure is assessed. A good structure is where the sward in over 50% of the field has a variety of taller and/or shorter sward with medium height sward throughout, with positive indicator plants flowering.

Such good vegetation structure is awarded the maximum 20 marks. Both overgrazing and undergrazing are penalised, as they do not provide habitats where biodiversity can thrive.

A field is regarded as overgrazed when the sward is short throughout the grazeable area, with little variation in the height of vegetation and where over 75% of the sward is very short, with few flowering plants.

Undergrazing results in rank vegetation across much of the field, with leaf litter accumulating and scrub encroaching.

Agriculturally favoured plants can reduce the field score in an LIG field. These include ryegrass, nettles, docks, ragwort and thistles (creeping and spear). There is negative marking where their combined cover is over 10% of the field. Their rare occurrence, on less than 5%, is rewarded with 10 marks.

Threats and pressures to LIG include the expansion of immature scrub, bracken, invasive alien species,



bare soil and erosion and artificial drainage. Where these threats and pressures are not evident, you gain up to 25 marks, but their presence is negatively marked.

Damaging activities to vegetation or soil are penalised, even where a small area is affected. Examples include quarrying, dumping, supplementary feeding, burning, herbicide or slurry spreading.

Any evidence of damage to watercourses is also negatively marked. Natural water sources rarely (or lightly) used due to adequate provision of water (in tanks or troughs) are not considered to be damaging.

Grassy margins

Farmers with Priority Environmental Assets, such as Natura areas or commonage, will get priority access to ACRES in Tier 1. One action that some farmers can undertake to increase their chance of gaining access under Tier 2 is the creation of fenced grassy margins in either tillage or grassland.

Where whole farm stocking rate exceeds 130kg livestock manure N/ha produced on the holding (whether beef, dairy or sheep), or is more than 30ha, undertaking at least one of the following actions will increase the chances of getting into ACRES as a Tier 2 applicant: minimum tillage, catch crops over winter stubble, grass margins, arable or grass margins, grassland or low input peat grassland.

Grassy margins provide rough grass habitat, which is absent from many intensively managed farms.

Table 1: Payment rates for LIG (Low Input Grassland scores).

Field score	10	9	8	7	6	5	4	<4
€/ha	400	375	350	325	300	275	250	0



Catherine Keena delivering a Teagasc AETS course in Longford, organised by colleagues Sean Doorley and Donal McCabe.



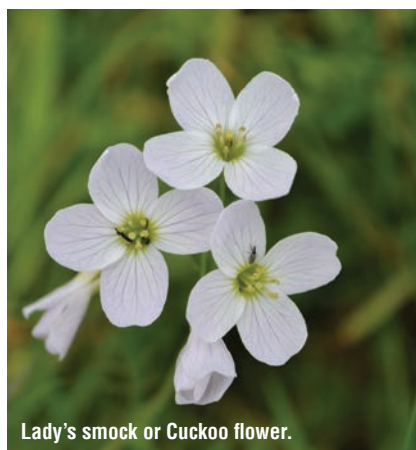
Forget-me-not.



Greater birds-foot trefoil.



Yellow rattle.



Lady's smock or Cuckoo flower.



Ragged robin.



Flowers that may mean money in ACRES.

Uncultivated, unsprayed, fenced field margins allow the native rough grass margin to continue undisturbed, protecting soil biodiversity.

Their presence and structure allows grasses and wildflowers to flower and seed, providing habitat for associated invertebrates, birds and small mammals. Birds such as linnet feed on grass seed. There is a high biodiversity value in any native plants growing wild naturally.

Other ACRES actions

With a proposed maximum of 15ha for LIG and 10ha for extensive

grassland, there is potential for most farmers to undertake further actions. Most of the actions available in GLAS will be available.

Hedge planting is likely to be popular, using native species of Irish provenance. The planting of wild bird cover will not be a priority action in ACRES, but is a very valuable action for biodiversity and for farmers – where it suits the farm and farmer.

Creating watercourse margins and LESS (low emission slurry spreading) will be available to farmers where these actions are not mandatory under nitrates.

	Farmer payment (estimated average)	Farmer payment (maximum)
General measure (target 30k farmers).	€5,000	€7,300
Cooperation measure (target 20k farmers).	€7,000	€10,500



Teagasc Director Professor Frank O'Mara in conversation with Carol Melody of Teagasc and Monika Halwax-Sherry (right) of the Goatstown Allotment Association at the Teagasc stand at Bloom 2022.

Agricultural diversification – Have you considered horticulture?

Carol Melody

Lecturer of Biodiversity, Ecology and Plant Science, Teagasc College of Amenity Horticulture.

The only constant in life is change and those willing to adapt will survive and thrive.' This is a paraphrased quote from a Greek philosopher adopted by scientists and politicians over centuries.

It's equally relevant to people working the land. Change is unavoidable and accelerating due to the vagaries of global economics, war and now, most importantly, our response to climate change.

Agriculture accounts for greater than one-third of our national green-

house gas (GHG) emissions, mainly in the form of methane from ruminant livestock and nitrous oxide from fertiliser use. Currently, with fuel and fertiliser prices spiralling upwards, a global food crisis is predicted for the near term.

Of course, in the 1840s we had our own dreadful food crisis. In post-famine Ireland, the congested districts board and later bodies encouraged diversification across farm holdings, including crop rotation techniques, establishment of fruit trees, field and tillage crops, new livestock breeds and delivery of beehives and training in honey production.

With these changes, there was increased success and profit from farming. Subsequently, besides a diversity

of livestock and fodder crops, nearly all farm holdings had an area of vegetable and fruit production.

Potatoes, the most important root crop globally, remained a staple in the gardens and diets of the Irish, despite potato blight (see also the article in this edition by Stephen Kildea). Turnip, cabbage, peas, beans and beetroot are still commonly grown for domestic use.

Most farms had a domestically maintained orchard of fruit trees, often with varieties adapted to the Irish climate (today these are often described as heritage varieties). Some farmers grew such crops for sale.

As recently as the 1990s, you may remember bundles of cabbage plants being sold at your local markets.



An Taoiseach Micheál Martin met Teagasc Director Professor Frank O'Mara and Head of Horticulture Dermot O'Callaghan at the Teagasc stand at Bloom 2022.

In general, as a subsector of agriculture in Ireland, horticulture is overlooked. It is a viable investment option for landowners and farmers, who already may have the prerequisite knowledge, tools and ability to diversify into fresh produce, but they do need to have the requisite skills to market their own produce.

Vegetable and fruit production occupies the least amount of land, releases the least amount of greenhouse gases, while returning the most food. Food horticulture was worth around €423m (farmgate) to the Irish economy in 2021, with the majority being sold domestically.

While the retail market for fresh produce is worth around €1.6bn, the majority of fruit and vegetables are

imported. Consumers are changing, becoming more health conscious and environmentally aware.

There is a particularly high demand for sustainable, organic, local produce. Fifty percent of consumers surveyed said they would pay at least 10% more for organic produce, confirming a price premium for producers.

It is a sustainable option for those looking to adapt and respond to human induced environmental change. There is scope for market-led expansion in certain crop lines and regions. The organic option is worthwhile where demand is strong and marketing direct to the consumer is possible. A self-install 50m² polytunnel can be purchased for around €1,500 and

open pollinated seed of Irish heritage vegetables and grafted heritage fruit trees are available from Irish Seed Savers (seed packets from €2.95). If you're not willing to jump into growing yourself, perhaps consider renting a couple of acres to someone who is.

If you feel you need a better grounding in the theory and practical applications of horticulture, we offer Level 5, 6 and 7 courses, full-time and part-time, at the Teagasc College of Amenity Horticulture, which has facilities at the wonderful National Botanic Gardens and Teagasc Ashtown.

See growing guides at www.teagasc.ie/crops/horticulture/vegetables/home-gardener.

Teagasc at Bloom 2022

The Teagasc horticulture Bloom exhibit *Healthy People, Healthy Planet* set out to inspire people and create awareness about Irish fruits and vegetables, their positive impact on personal health, in terms of consumption and the positive climate impact in choosing fresh produce, plants and trees.

"The value of the horticulture sector for consumers in terms of fruits, vegetables and plants has come into sharp focus in recent times," says Dermot Callaghan, head of Teagasc's Horticulture Development Department.

"Fresh produce has a key role to play in healthy diets and has a low environmental footprint, but also the value of plants and trees in our gardens and our built environment is now clearer than ever. We are squarely behind these themes for Bloom."

"Of course, we also offer a range of

horticulture courses at our colleges. These themes, which are important for Teagasc, were all addressed at Bloom. If you are interested in any aspect of horticulture, visit www.teagasc.ie/horticulture or contact us via any Teagasc location," Dermot said.

Teagasc's Horticulture Development Department displayed a range of research and advisory supports to the horticulture sector and emphasised work recently commenced by Teagasc to develop alternatives to peat-based growing media in the horticulture sector.

Horticulture education featured the Teagasc College of Amenity Horticulture at the National Botanic Gardens, Dublin and Kildalton Horticulture College, Piltown, Co Kilkenny.

Both colleges play a major role in horticultural education and training in Ireland. The Food Waste Challenge showcased Teagasc's research into

reducing food waste and minimising single use plastics in horticulture products, supporting a transition to more sustainable packaging, and generating new data on food waste and GHG emissions.

The Irish landscape provides a rich variety of natural, cultural and built heritage. The Biodiversity in our Countryside exhibit outlined a range of relevant Teagasc resources that address farmland biodiversity and the Irish countryside. Teagasc Forestry Development Department highlighted its work in promoting and researching the many benefits that trees and forests provide, including their vital role in addressing climate change.

Potato Research detailed how Teagasc research is supporting Irish potato production by developing new potato varieties and helping to better forecast potato late blight.

Benefits of eco-therapy



Michael Somers
Forestry Development
Officer.



Eco and forest therapies are practices that support every aspect of our wellbeing. The health benefits attributed to forest therapy include boosted immune function, improved cardiovascular and respiratory health, and reduced stress.

However, farmers have demanding jobs and face challenges compounded by economic uncertainty, vulnerability to weather events and rural isolation.

As a result, farming has significantly changed over the past decade. While many farmers may not think forests or nature can provide this type of service, an important project is currently being run in Castlecomer in north Kilkenny.

The Mid-Leinster Farmer Wellbeing Project is funded by the EIP European Innovation Project. Teagasc and Kilkenny Leadership Partnership, Castlecomer Discovery Park, Trinity College Dublin, South East Technological University (SETU) and Mental Health Ireland are involved in this unique project.

In addition, the operational group is well represented by national farming

organisations and local development groups.

The principal reason for people to participate in this programme is engagement, or the ability to become comfortable with others through soft skills and learning in a forest and natural environment.

The programme falls under four themes;

Traditional skills

• **Development (eco activities incorporating talk therapy)** – provides participants with the opportunity to learn new skills and provides a platform for social engagement and an outlet for creativity.

• **Health, safety and wellbeing (forest therapy)** – will feature facilitated talks on wellbeing. This involves using expertise from the project's operational group membership and existing programmes - it will focus on participants seeing the benefits of resilience-building and identifying potential stressors.

Farm visits

• **Diversification/innovation and peer-to-peer supports** – this part of the programme seeks to introduce farmers to nature therapy, associated with talk therapy, as a means of gaining wellbeing and associated health

benefits. It will also train farmers in new skills and forms of exercise.

• **Adventure therapy (Castlecomer Discovery Park)** – peer-to-peer support provides participants with a stimulating new recreational outlet while also providing mental health benefits.

Recently, the pilot programme took place. One of the critical aspects of the pilot phase included The Five Ways to Wellbeing workshop.

This workshop focused on different actions that can be taken for wellbeing and was delivered as part of the Mid Leinster Farmer wellbeing programme. The workshop set out to provide participants with:

- A brief introduction to the concepts of positive health and wellbeing.
- An improved understanding of how we can look after our wellbeing in the natural environment.
- An understanding of incorporating the Five Ways to Wellbeing as a healthy coping strategy into our lives.

The pilot for this project has been completed and a programme is now in place.

Farmers are welcome to attend and anyone interested in participating in this project can call Conor Cleere, Kilkenny LEADER Partnership, on 056-775 2111 or Michael Somers, Teagasc, Nenagh, on 067 31821.

Ballyhaise'22

Futureproofing Irish Dairying

Wednesday, 13 July
10am

OPEN DAY

Ballyhaise College,
Co. Cavan

Ballyhaise'22 will highlight the various technologies and practices available to farmers to underpin future farm profitability and sustainability.

Ballyhaise'22 is an ideal opportunity to see at first-hand, the results of the Comprehensive research programme and to meet research, advisory and education staff.

The main technical stands will cover the following topics:

- Profitable Milk Production Systems
- New Frontier in Breeding Technology
- Adapting to Clover-based Low Nitrogen Systems
- Benchmarking Farm Performance

Villages & demonstration will include; Grazing Practice, Signpost Programme, Improving Nutrient Use and Retention On-Farm, Breeding and Reproduction and People Farming Smarter followed by a Special Forum: Farmers Meeting the Challenges – From Research to Practice

For more info see: www.teagasc.ie/ballyhaise22

Scan the QR code
for more info!



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