TEAGASC
November-December 2024 | Volume 35 | Number 6

# Today's Farm

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

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**Joseph Dunphy pictured on his dairy farm in Easkey, Co Sligo.**


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**Cover:** Tipperary farmer Michael O'Donnell with his Teagasc advisor Sean Cooney. Working full-time off farm, time is precious for Michael and he is investing in development works that will future-proof him against any regulation changes with regards to slurry storage and ease his farm workload. Photo: Mark Moore

COMMENT


**Mark Moore**
Editor,
Today's Farm


# Calling all sheep farmers

In Martina Gormley's article on dairy farmers and their working hours she outlines how some farmers organise themselves to work smarter, not harder. In particular, she points out that farmers who begin milking earlier in the evening, get home relatively early. Other farmers, possibly out of habit, start, milking later and finish later.

All farmers work long hours and any tips to shorten the day or reduce workload are welcome. Sheep farmers have some of the most demanding work peaks. Teagasc is conducting a survey which will help quantify the workload sheep producers are under and possibly identify and share ways to manage these bottlenecks. With that in mind we invite all sheep farmers to complete the survey from the QR code below. If you would prefer to do the survey on paper please contact your local advisor.

# Ag glaoch ar gach feirmeoir caorach

In alt Martina Gormley ar fheirmeoirí déiríochta agus a gcuid uaireanta oibre, tugann sí léargas ar na bealaí a bhfuil feirmeoirí áirithe á n-eagrú féin le hoibriú níos cliste, seachas níos crua. Dá luaithe a thosaíonn feirmeoirí ag bleán na mbó is ea is luaithe is féidir leo dul abhaile, dar léi. Feirmeoirí eile, b'fhéidir de bharr go bhfuil sé de nós seanbhunaithe acu, tosaíonn siad ag bleán níos déanaí san oíche agus críochnaíonn níos déanaí dá bharr.

Cuireann gach feirmeoir uaireanta fada isteach agus tá fáilte roimh leid ar bith a d'fhéadfadh cabhrú leo an lá a dhéanamh beagán níos giorra nó an t-ualach oibre a laghdú. Is déine na buaiceanna oibre a bhíonn ag feirmeoirí caorach. Tá Teagasc i mbun suirbhé faoi láthair arb aidhm leis an t-ualach oibre a bhíonn ar tháirgeoirí caorach a chainníochtú agus b'fhéidir bealaí a aithint agus a chomhroinnt leis na scrogaill sin a bhainistiú. Ar an ábhar sin, táimid ag iarraidh ar gach feirmeoir caorach an suirbhé a líonadh ach an cód QR thíos a leanúint. Más fearr leat an suirbhé a dhéanamh i scríbhinn, iarrtar ort teagmháil a dhéanamh le do chomhairleoir áitiúil.

# TEAGASC NATIONAL BEEF CONFERENCE

**Tuesday 19 November: Landmark Hotel, Carrick-on-Shannon**
**Eircode: : N41 N9W4.**
**Event commences: 5pm**

**5pm:** Welcome from James Keane, Teagasc Regional Advisory Manager

**5:10pm:** Opening Address by Professor Pat Dillon, Director of Research, Teagasc

**Session 1: Innovating for Efficiency: Smart farming in the Irish beef sector, chaired by Tom Coll, Teagasc Drystock Advisor, Mohill**

**5:20pm:** The impact of red and white clover on animal performance in suckler calf-to-beef production systems
*Dr. Peter Doyle, Research Officer, Teagasc Grange*

**5:45pm:** Practical nutrient management solutions that beef farmers can implement on their farms to increase efficiency, reduce costs and address environmental pressures facing the sector
*Dr. Patrick Forrestal, Senior Research Officer, Teagasc Johnstown Castle*

**6:10pm:** Controlling pneumonia in suckler weanlings
*Dr. John Donlon, Research Officer, Teagasc Grange*

**6:45pm:** Short break including complimentary refreshments

**Session 2: Harnessing Innovation: Future proofing Irish beef farming Chaired by Alice Doyle, IFA Deputy President & Member of Teagasc Authority**

**7:15pm:** Bluetongue: What are the risks for Irish cattle farmers and what can we do about it?
*Dr. Eoin Ryan, Department of Agriculture, Food and the Marine (DAFM)*

**7:40pm:** Driving Sustainability: Innovations on Future Beef Suckler Farms
*Martina Harrington, Programme Manager, Future Beef Programme, Teagasc*

**8:05pm:** Staying Resilient on the Farm Through Stressful Times of the Year
*Shane Pearson, Lecturer with the Institute of Health Sciences (IHS)*

**8:30pm:** Discussion

**8:45pm:** Close of Conference with Professor Laurence Shalloo, Head, Animal & Grassland Research and Innovation Programme, Teagasc

## UPLANDS SYMPOSIUM

**Tuesday, November 12**
**Venue:** Ballymascanlon Hotel, Carlingford Road, Dundalk, Co. Louth.
**Eircode:** A91 PF57
**Time:** 9:30am - 4:15pm

## TEAGASC COLLEGE OF AMENITY HORTICULTURE OPEN DAY

**Thursday, 14 November**
**Venue:** Teagasc College of Amenity Horticulture, National Botanic Gardens, Glasnevin, Dublin 9.
**Eircode:** D09 VY63
**Time:** 12 noon to 3pm | Tours on-going

## SIGNPOST TILLAGE FARM WALK

**Tuesday, 19 November**
**Venue:** Farm of Tom Tierney, Ballinafagh Farm, Prosperous, Co. Kildare.
**Eircode:** W91 A218.
**Time:** 11am - 1pm

## NATIONAL POTATO CONFERENCE

**Thursday, 21 November 2024**
**Venue:** CityNorth Hotel, Gormanston, Co. Meath.
**Eircode:** K32 W562
**Time:** 9:30am

Topics will include:
- Home saving seed and blight,
- How do deal with the strain EU43 and others into the future.
- Teagasc Speakers include: Steven Kildea, Denis Griffin, Shay Phelan. Other speakers include Tom Murray (O'Shea's in Pilltown) plus other guests.
- Bord Bia will lead a session on 'New trends in potato consumption'.

Registration will start from 9.00 with the conference starting @10.00 Registration is through IFA and will cost €50.

## PRACTICAL PEOPLE MANAGEMENT SKILLS FOR DAIRY FARMS

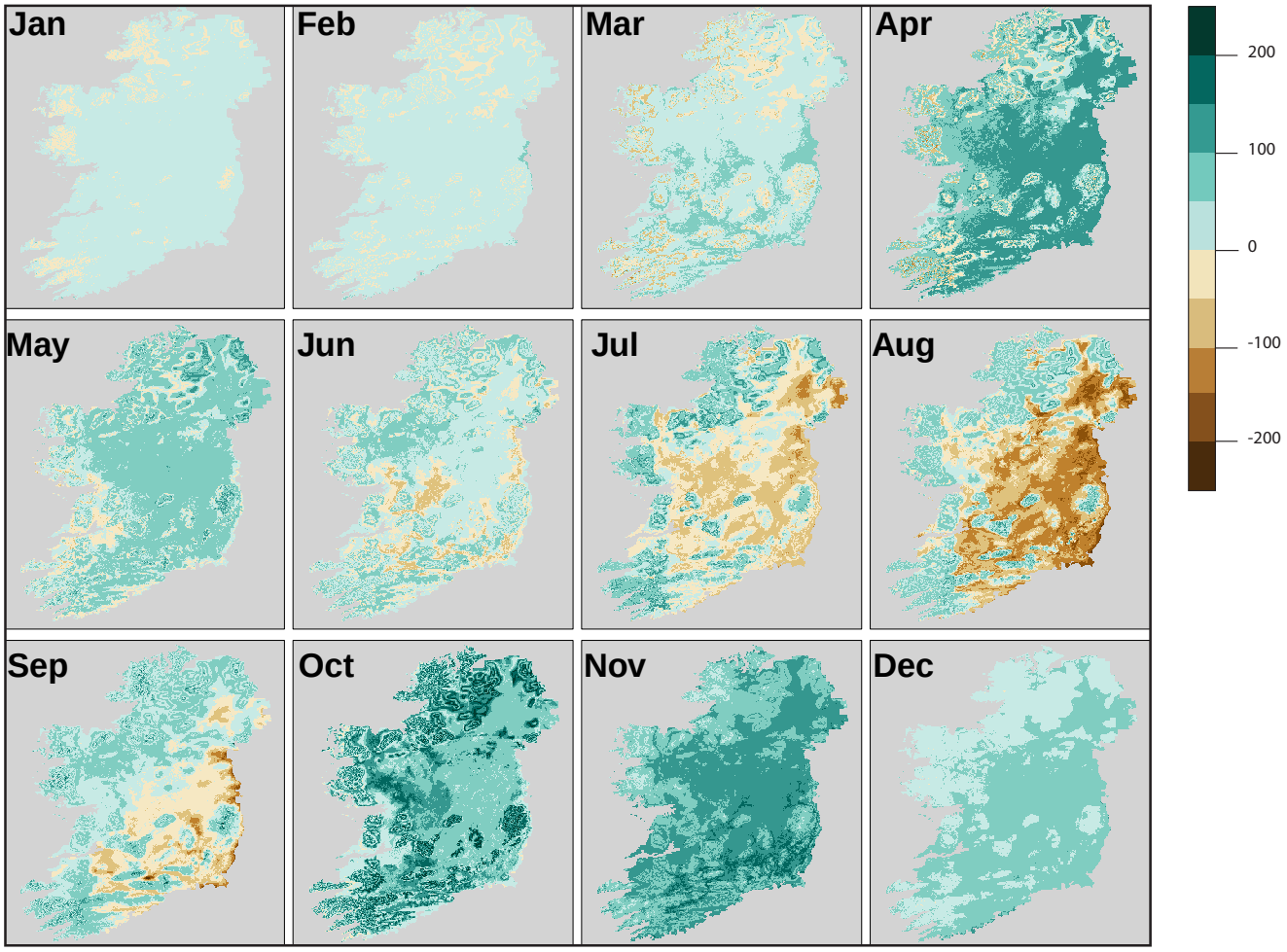
**Two-day course on 22 & 29 November**
**Venue:** West Cork Hotel, Skibbereen, Co Cork.
**Eircode:** P81 FH63
**Time:** 10am-4pm
**Cost:** €150 per participant

*Contact Darren Lynch on 087 2140715 to register*

# Grass growth to 2040 and beyond: future climate scenarios

**Elodie Rudelle**
Teagasc
Researcher,
Moorepark

A simulation exercise at Teagasc Moorepark suggests that rising temperatures will boost grass yields but with greater variability within and between years. Farmers will need to adjust their management to take into account both seasonal growth and soil factors.




**Monthly cumulative grass growth difference between a 1.5°C warming simulation and the baseline simulation (1976-2005).**

The author would like to acknowledge the help of Seanie Griffin in accessing the TRANSLATE climate projections data (met.ie/science/translate). The author would also like to thank the funding from DAFM (FarmAdapt 2022PSS111 and AgriAdapt 2023RP865) as well as the Teagasc Climate Centre.

On-farm grazing infrastructure will have to be improved to ensure good access to paddocks early in the year.

Our temperate climate means grass continues growing for most of the year and drought conditions are rare. However, the climate is changing and it is important to know the likely impact of future climate scenarios.

We recently used weather projections from the TRANSLATE project and the Moorepark St Giles grass growth (MoSt GG) computer model to predict the impact of future climate scenarios on grass growth.

Preliminary findings show that an increase in the Earth's average temperature of 1.5°C could lead to an increase in our national average annual grass yield of 2.5% and a 3°C increase would lead to an average increase of 8.5%.

### A 1.5°C warming

Assuming the same management for each part of Ireland, and an unrealistic uniform free draining soil type, a 1.5°C warming could result in a median increase in average annual grass growth of 438 kg dry matter (DM)/ha (ranging from -8 to 1,106 kg DM/ha).

This corresponds to an increase of 3.4% in annual grass growth. Going up to a 3°C increase would lead to a further median increase of 599 kg DM/ha but with more variability and some parts of the country seeing a slight decrease in annual growth.

If we look at the monthly data, the increase in grass growth will be mainly for the winter and spring months, especially April, October and November.

The model forecasts a decrease for the summer and autumn months; August in particular.

Our findings forecast an increase in the variability of output between years for the months of July, August and September. Better farm infrastructure and increased high quality forage stocks will therefore be needed to adapt to the future climate.

> Early results indicate that the increase in variability on heavier soils should be less pronounced in the summer due to their ability to retain water

### The next 50 years

This preliminary work shows that no major changes are forecast for the 50 years ahead. However, the increase in variability and the change in seasonality will bring some challenges.

It may not be possible, for example, to take advantage of the increase in growth in the spring months, through increased grass utilisation, if soil conditions restrict grazing.

On-farm grazing infrastructure will have to be improved to ensure good access to paddocks early in the year, especially if the increase in spring growth comes with an increase in rainfall.

On the other hand, the decrease in growth in summer, combined with an important increase in the variability during the months of July to September will lead to increased challenges for summer and autumn grassland management.

This could cause difficulty in creating adequate stocks of silage for winter feeding.

On the other hand, the projected increase in growth for the months of October and November could help extend grazing, weather conditions permitting, and help farmers reach target closing and opening farm covers.

Extreme years could result in very poor, or potentially even no, growth in some of the summer months.

Those years, while rare, might become more frequent in the future. Farmers will need to increase their silage and forage stocks to ensure adequate buffer feed is available.

### Drought resistant grass

The switch to more diverse swards or more drought resistant grass could help in the adaptation to drier summers.

Early results indicate that the increase in variability on heavier soils should be less pronounced in the summer due to their ability to retain water.

We didn't examine trafficability although it could have a major impact if grass cannot be grazed or fertiliser applied due to high rainfall levels.

In the future, we will analyse more locations, soil types and weather projections.

On balance, farmers don't need to fear the impact of rising temperatures on grass growth. However, there will be new management challenges to utilise the greater grass output.

Joseph Dunphy on his farm in Easkey, Co Sligo.

# Reducing spring workload pressures on dairy farms

Spring is always a challenging time for dairy farmers and spring 2024 was particularly difficult. So what lessons can be learned and what actions can be taken to reduce the pressure and stress during spring 2025? Some answers can be found in the experience of farmers involved in the joint Teagasc-Aurivo dairy programme.

**Martina Gormley**
Dairy Specialist,
Teagasc Athenry

**Conor Hogan**
Reasearch Officer,
Teagasc Moorepark

**John McCabe**
Advisor,
Teagasc-Aurivo
Joint Programme

**Pictures:**
Ray Ryan

Farmers know they work hard in spring; their own experience provides the evidence and this is backed up by research. The calving period accounts for a third of annual labour input on dairy farms. Any time that can be saved during this period is crucial, whether that's to alleviate pressure on the farmer, family members or staff working on the farm.

With this in mind, 100 dairy farmers involved with the Teagasc Aurivo programme recorded their working hours, time savers and challenges encountered during spring 2023 and 2024. Results from the study highlighted the substantial workload on farmers (Table 1). The average farmer started at 6.34am and finished at 18.55pm, adding up to an average of 74 hours worked per week.

As is always the case in these studies, there were farmers who worked more and some who worked fewer hours per week. The latter had similar start times (6:24am) but finishing over an hour earlier (17.49pm), working 63 hours per week.

Much of this difference was due to the significantly earlier evening milking time. This poses the question: what were these farmers doing, or not doing, to reduce their workload so that they could milk earlier? Most importantly, what steps can we take to manage spring 2025 as effectively as possible?

The farmers involved in this survey came together to discuss the topic, and five key actions were identified:

- Calf management.
- Workforce planning.
- Weather.
- Animal health.
- Work organisation.

This article looks at these five key key actions identified by farmers to reduce work and stress in spring.

**Table 1.** Workload measures for farms Feb/March 2023 and 2024

| | Feb/ March 2023 | Feb/ March 2024 | |
|---|---|---|---|
| | Average (n = 47) | Average (n = 53) | Top 25% (n = 13) |
| Time you left house every morning | 06:27 | 06:34 | 06:24 |
| Start time of evening milking (cups on) | 16:29 | 16:18 | 15:43 |
| Daily PM finish time | 19:15 | 18:55 | 17:49 |
| Hours worked per week (excl night checks) | 72 | 74 | 63 |

## CALF MANAGEMENT: Invest time and money to maximise your returns

Building a good reputation with calf buyers was seen as crucial; sale of calves was identified as the largest time saver for farmers. Best practice calf management from birth is essential for this, as well as to avoid future problems with calf health.

Farmers suggested using the Dairy Beef Index when selecting beef AI. They also advocated testing every cow's colostrum with a refractometer. Appearance alone will not tell you if colostrum is of good quality. Farmers who tested colostrum noted surprising variations within their herds highlighting the importance of testing for optimal calf health. Ideally colostrum should have over 22% protein.

Following the 'colostrum 1-2-3' rule (first milking, within two hours, three litres) will ensure calves get the best start. Farmers noted that this all takes time but the reason is to try to ensure calves get the best start and reduce sickness at a later stage, for the dairy farmer and also for the purchaser. "It's like an insurance policy," said one farmer.

The farmers said a store of high-quality colostrum was vital. Many recommended investing in a fridge and using zip-lock bags or one litre plastic bottles for easy thawing. They also recommend testing silage and, if needed, feeding soya two weeks before calving to boost colostrum quality.

### Housing and feeders

Investing in calf housing and improving existing calf houses was noted as a key area for some farmers; bearing in mind the need to keep calves for longer.

A number of farmers praised automatic calf feeders as a key time saver. Most farmers agreed that a straw budget of about €30 per calf is needed to provide sufficient bedding. Vaccination was viewed as another important preventive measure; providing an insurance policy against future health issues.

In summary, farmers noted that their thinking around selling calves had changed, particularly as herds got bigger and workload increased. In the past, the thinking was to get as high a price as possible.

Now the aim is to achieve a win-win outcome. Sell a good healthy calf at a younger age and hope that the drystock farmer makes a profit and buys from you again next year. One farmer summarised that a 'good healthy calf' means: "DBI, good, tested colostrum, a dry cosy bed and vaccinated for all the preventives. It costs time and money but it's worth it in the end."

Auditing the yard and sheds to identify any repair work required was highlighted as a priority.

## WORKFORCE: Plan ahead to avoid disruption

Traditionally dairy farms were run by full-time people, working seven days a week. Now many dairy farmers with 100-cow herds have two or three part-time employees plus themselves, whether it is for a few milking's or helping with calves. There are plenty of tasks and flexibility on working hours on dairy farms.

A lack of help was a serious issue on some farms, especially if it fell through at the last minute. Some farmers found themselves shorthanded by putting all of their eggs in one basket – namely, a single employee or student. Through no fault of their own, or yours, people can get sick, injured, or may not be suitable for your farm.

To avoid you having to work on your own in spring, start looking for help a few months prior to calving.

### Training

Allow time to train new employees before spring. Ideally have more than one person to help you.

Being proactive is essential when sourcing people, whether that is through the Farm Relief Service, neighbours, local students or schools, GAA clubs, men's sheds, or stay at home parents.

While this can be initially difficult, the farmers said they were surprised by what opportunities arose when they took the initiative.

## WEATHER: Expect the unexpected

**The unpredictability of weather was acknowledged, as was the fact that planning can mitigate its impact. Farmers agreed that spring weather is usually tough in either February or March. In 2024, both months were difficult. Having adequate help, good roadways and high-quality silage were seen as critical tools for operating under poor weather conditions. A surplus of silage was key to reducing stress during spring. Some farmers noted that having a few locations to store silage was essential, so that the appropriate silage quality could be fed to the right cows.**

**If the ground is waterlogged, housing cows is the best way to protect your land. Walking the land and regularly assessing conditions can guide your decision-making. Aim for one grazing per day and if you cannot get out for the odd grazing here and there, do not dwell on it.**

Continued on p10

Paul Conway, Joseph Dunphy, and John McCabe on one of the farm's excellent internal roadways.

## ANIMAL HEALTH
## Focus on prevention

Good dry cow management was seen by participants as essential to reducing sick animals and preventing metabolic diseases during calving. Testing silage, feeding the right minerals and monitoring body condition score were key to ensuring cows calved down in good condition. Farmers also stressed the need to manage over-conditioned cows through restriction or feeding lower quality silage.

Some ideas highlighted to prevent mastitis included: cleaning cubicles twice a day for milking cows, CMT testing post calving, and using adequate teat dip.

### Colostrum group

Having a colostrum group of cows for milking was another suggestion. This group will make milking easier, allow for the treatment and recovery of any sick animals, and give freshly calved cows a chance to settle in.

Colour coding colostrum cows with four colours and changing the colour each morning was a great way of giving assurance and peace of mind, especially where multiple milkers are present.

The majority of the farmers had now moved to two groups of cows (milking & fresh group) and said they would not go back to mixing all cows together at milking.

## WORK ORGANISATION
## Use December and January wisely

**Getting organised in December and January sets the foundation for a successful spring. Two necessities during this period were a to-do list and a supply list; writing them down is essential to make sure they are done!**

**Repairs and maintenance accounts for about 8% of all spring labour input which is significant in the context that much of this work is avoidable, or could be completed now or postponed until later in the year.**

### Key items

**Some of the key items highlighted by farmers included:**

- **Auditing the yard and milking block to identify any repair work required;**
- **Checking fences, roadway surfaces and water troughs;**
- **Servicing the milking machine, bulk tank, machinery, calf feeding equipment, cameras, lights, etc;**
- **Restocking materials needed for the season ahead**
- **Completing sire advice early;**
- **Completing a nutrient management plan and ordering fertiliser.**

### Compact calving

**For herds that calve compactly and spring only, the question must be asked: should you really be milking over the winter even if it's Once A Day (OAD) milking?**

**There is a lot of work to do prior to calving and this time will be well spent if it helps you reduce spring workload. Much of this work is focused on administration and planning; a different type of work.**

**However, its value should not be underestimated. This time should also be used to take a break, recharge and get energised for the season ahead.**

## CONCLUSION
### Plan Now, Save Later

With the right planning and preparation now, next spring can be smoother and more productive for all involved on the farm. By focusing on key areas highlighted, you can significantly reduce stress and save time during the busiest months.

PROFILE: Joseph & Helen Dunphy, Easkey, Co Sligo

# 'Repeat customers for calves is key to reducing the workload'

"We didn't always have that number," says Joseph. "In 2008 we had 50 dairy cows, kept all young stock and had a sheep enterprise.

"The farm system was simplified in 2014 when we went from having eight groups of stock to 140 dairy cows plus two groups of replacements. This really was the start of making life easier and having the money to pay for more help.

"The opportunity to increase from 140 to 300 cows came in 2015 when a neighbouring farm came up for lease. The system was simplified further as R2 animals are now contract reared leaving only milking cows & calves on the grazing block.

"We had the courage to take this on as both of our sons, Joseph Jnr and Michael had completed Dairy Business in UCD and had travelled to New Zealand and brought back all their learnings to the home farm. The team now includes one full-time employee and three part staff members plus myself. Some might think this is excessive but we have extra help in for spring and also we make our own silage so the extra help works well in summer.

We invested in facilities along the way and this has definitely helped to reduce workload and make tasks easier. We added cubicles and slurry storage in 2023 to make the farm more sustainable and reduce the movement of slurry at a busy time of the year

## Facilities

"We try to make things as easy as possible. We finish up in the evenings at 6pm in spring and 5.30pm for rest of year. I always ask any employee that moves on: what worked well and could be improved? Our last full-time employee who was with us for five years and is now going to New Zealand said: 'I always got home early'. To me this emphasises the importance of finish time.

"We invested in facilities along the way and this has definitely helped to reduce workload and make tasks easier. We added cubicles and slurry storage in 2023 to make the farm more sustainable and reduce the movement of slurry at a busy time of the year.

"We have just converted a hay shed into a calf shed. We now have an additional space for 30 calves and this shed will now accommodate 120 calves. We have also purchased a four station automatic calf feeder for this shed for spring 2025.

"We had thought about this for a long time, definitely did not rush into it but felt now was the time to make this investment. The conversion took us three weeks to do, the material cost us €5K, which includes concrete, hire of mini-digger, stock board for all gates and drainage pipes.

## Labour

"We did the labour ourselves. This project was well worth doing and will definitely benefit us in spring. Repeat customers for calves is key to reducing workload, we don't go after the last penny."

Joseph added that they make sure to have enough help to run the place without everyone being overworked especially in the springtime.

"You couldn't have enough help in February and especially March. A transition year student has just rang me asking if I will have work this spring, he is a great addition in the evenings and weekends. It takes the pressure off the rest of us. It's amazing what an additional hour or two of help can do. In the scheme of things it's a very small cost."

## Drying off

The Dunphys dry off the herd on 20 December each year. "We milked on once and it wasn't worth it at all as we are compact calving. In fact you just wouldn't be as fresh going into calving. People ask us what work do you have then for employees?

"There is always work and we take on one or two projects each winter, like repairing roadways and fixing sheds. We give extra days off and finish earlier in January.

"There is a lot of planning and organising to make sure the farm runs well. My son Joseph Jnr is a serious planner, he now does most of the organisation and planning. It is so important to hand over responsibility. Due to this, we don't get caught out being short on supplies or not doing jobs when they should be done."

Stephen Frend manages day-to-day operations at Newford Farm

# Slow summer for grass hits Newford Farm performance

Joint project between Dawn Meats and Teagasc demonstrates the potential of a suckler beef farm.

**Aisling Molloy**
Future Beef Programme Advisor

Newford Farm is a suckler beef demonstration farm which is based in Athleague, Co Roscommon. It is a joint project between Dawn Meats and Teagasc and supported by McDonald's.

The herd is run on a fully commercial basis, demonstrating the potential of a suckler beef farm to improve farm performance and apply best practice in sustainability, when operated to the highest level of technical efficiency.

The Newford Herd was based in Athenry for eight years on land leased from the IDA, but moved to Athleague Co Roscommon, earlier this year as the IDA had secured a new tenant for the Galway site.

It was important to locate a farm of similar size and while the farm is heavier in nature and higher above sea level than the Athenry location, it has good housing facilities and is still located in the west of Ireland. Brian Daly from Teagasc Roscommon is the local advisor.

## Farm system

The herd consists of a 90-cow suckler-to-beef herd. They are spring calving and are mainly first-cross Angus/Hereford/Aubrac cows from the dairy herd. The heifer progeny were finished at 19 months of age at 320kg carcase weight, while the bullocks are finished at 21.5 months at 365kg carcass weight in 2023.

The farmed area is 63ha (156 acres), which is in two blocks of leased land approximately 8km apart and both near Athleague.

The day-to-day farming operations are managed by Stephen Frend, who is from a beef and sheep farm in Toomevara, Co Tipperary. He studied agricultural science in SETU in Waterford and Teagasc Kildalton College before becoming the manager of Newford in 2022. He is assisted by casual labour, contractors and students on the farm.

## Breeding

The cow type is first-cross Angus, Hereford and Aubrac from the dairy herd. They have good maternal figures with a replacement index of €142, 14.1kg daughter milk, -3.3 days calving interval and 0.09 on docility.

However, as they are first crosses, they have poor carcase weight and conformation figures as expected. 100% AI is used on the farm and high terminal AI bulls are used on the cows. The criteria for the bulls are:

- Five stars on the ICBF terminal index.
- <5.1% calving difficulty for cows at over 68% reliability and <6.1% for heifers.
- >1.95 conformation.
- >35kg carcase weight for cows, >25kg for heifers.
- AI straw cost <€20.

The bulls that met the criteria this year were LM4366, LM4377, CH6271, CH8971, LM8619 and LM9376. The bulls used on the maiden heifers were LM2014 and AU1170.

In order to streamline work for Stephen during the breeding season, it is limited to 10 weeks from 22 April to 1 July for the cows.

The heifers are bred over a 6.5-week period from 22 April to 8 June to give them time to recover after calving for the 2025 breeding season. They are also only bred once a day at about 12pm.

"If a female is bulling in the morning or evening, she is artificially inseminated the following day at

midday," says Stephen. If she is still showing strong signs of heat on the day of insemination, she will be served again the following day. "I don't mind breeding them again as the repeat straw cost of €12 is much cheaper than having a calf born three weeks later the following year, and only 15% were served twice this year in any case."

Two teaser bulls, tail paint and the MooCall system are used to help with heat detection and Stephen records heats at least three weeks before the breeding season starts.

"This year 78 cows and 23 heifers were bred, with 86 in total scanned in calf on 14 August (85% overall pregnancy rate)," adds Stephen.

The replacement heifers are sourced from dairy herds and reared as calves on the farm.

These are selected based on their genetics; the criteria include a minimum replacement index of €150, >2kg carcase weight and -6 days for age at finish.

This year's replacement heifers were weighed on 23 September and averaged 181kg, which is on target for 190kg on 1 October. They will be bred next spring at 340kg and calve at two years of age at 500kg. The average cow weight for the herd is 580kg.

**Newford cows are mainly first-cross Angus/Hereford Aubrac cows from the dairy herd.**

## 2024 performance

A combination of a new farm of land, an early winter in 2023, a late spring in 2024 and a slow summer for grass are some of the causes of poorer than usual cattle performance.

"The suckler calves were weighed on 13 September and while the heifers averaged 282kg and the bullocks averaged 289kg after both gaining 1.2kg/day since birth, previous years' calves have gained up to 1.41kg/day from birth to weaning," says Stephen Frend.

A similar picture emerges for the finishing cattle as they were 40kg behind last year's stock in August and some would have typically been finished off grass by the end of September, which didn't happen as a result.

Meal feeding started on 26 August to the most forward bullocks (16) and heifers (25).

The bullocks averaged 592kg on 16 September and the heifers averaged 554kg. They are expected to be finished by early November and are currently eating 5kg of ration/head/day along with good-quality silage.

Continued on p14

Newford weanling heifers born in 2024.

Continued from p13

### Winter plans

"The delayed finishing of the 2023-born cattle could cause a housing space challenge. If all the cows, weanlings and finishing cattle need to be housed. If the finishers are not sold before the winter period, the weanlings will have to be straw-bedded which would be a significant cost. Therefore, the focus is on finishing them quickly and drafting cattle for the factory as soon as they are fit. Ground conditions can change very quickly on the farm at this time of year," says Stephen.

However, as the 2024 calves were weaned in September, there is the option to house the cows on slats and leave the weanlings out until the finished cattle are sold. As the lightest cattle on the farm they would cause the least amount of poaching. While there is enough slurry storage and feed in the yard, it would take pressure off both. However, they would continue to be fed 2kg of ration/head/day at grass.

Silage has been tested and ranges from 64% to 78% dry matter digestibility (DMD) and 10.5% to 15.2% crude protein. The cows can be fed the poorer-quality silage and the finishing cattle and weanlings will be prioritised for the best silage which will be balanced with ration. The weanlings are eating 1.5 to 2kg ration/head/day at grass which will help them in their changeover diets at housing.

"The weanlings will be faecal egg sampled and dosed at housing as it is a prime opportunity to clear out their systems over the winter," says Stephen. "The dosing strategy will cover lung worms, stomach worms and lice at housing, and this will be followed up with a dose for fluke, if required."

Care will be taken to ensure that pens are not overstocked as this could affect performance over winter. The target lying space for weanlings is 1.5m² to 2m² and 2.2m² to 2.7m² for finishing cattle on slats. The recommended feed space for weanlings being fed ration is 0.4m to 0.5m and this increases to 0.6m to 0.65m for finishing cattle.

Ventilation in the existing sheds is good so this should help prevent any respiratory disease, but the weanlings have been vaccinated against IBR, RSV, Pi3 and mannheimia haemolytica pre-weaning as a preventive measure.

## Further information

Newford Farm is part of the Future Beef programme. Discussion groups are welcome onto the farm and can be arranged by contacting Michael Fagan at Michael.fagan@teagasc.ie. You can read the regular updates and subscribe to the Future Beef newsletter on the Teagasc website at the QR code below.


Fergal Maguire (centre right) with course graduates.

# Want to sharpen up your calf to beef skills? This course is for you

## A new five-day Teagasc course is tailored for new entrants to dairy calf to beef systems

**Fergal Maguire**
Teagasc
DairyBeef 500 Advisor

Research farms at Teagasc Grange and Johnstown Castle have shown that a well-managed dairy calf to beef system has the potential to sustainably produce consistently high-quality beef while delivering positive net profit margins.

This is replicated at commercial farm level, where in 2023 the average net profit before scheme payments was €547 per hectare for the 16 DairyBeef 500 Programme farmers. The beef is produced in an environmentally sustainable way and meets carcass specifications.

At a national level there is still a high attrition rate of farms rearing dairy beef calves. Only four out of 10 of those who reared dairy beef calves in 2015 were still doing so in 2019. Reasons for exiting calf to beef production included poor economic returns, animal health issues, labour issues and unhappiness with the quality of the beef calf coming from the dairy herd.

For many new entrants to dairy calf to beef, there is often a whole new skillset needed to run a successful operation.

Even for existing calf to beef producers there is almost always scope for improvement. To provide guidance and develop the skills necessary to run a successful calf to beef enterprise, the DairyBeef 500 team designed a tailored calf to beef course.

### The course focuses on the five key areas of calf to beef production:

- Good animal health
- Good beef genetics
- Good calf rearing
- Good grassland management
- Good quality silage

Continued on p16

Continued from p15

Over five full days the Teagasc course helps students plan and implement a dairy calf to beef system on their farm.

In December 2022 the first students on the course visited the Teagasc Grange Research Farm in Dunsany to attend the first day of the dairy calf to beef course. Seventeen students enrolled on the South West course and eighteen attended the South East course. Both courses were five days and ran until August 2023.

### Demonstration farms

Over the five days, students visited DairyBeef 500 demonstration farms in their region, and also the dairy calf to beef unit in the Teagasc Animal and Grassland, Research and Innovation Centre in Grange, County Meath. The participants also visited the newly established Tipperary Demonstration farm and the Dawn Meats factory in Grannagh, County Waterford.

As well as visiting farms, the course covered topics including choosing the right calf to beef system for each individual's farm, calf rearing, necessary infrastructure, grassland management, winter nutrition and assessing finished animals. Throughout the course speakers from Teagasc, MSD, Volac and Dawn Meats gave lectures on aspects of calf to beef production.

Following on from the successful completion of the advanced dairy calf to beef course in Sept 2022, another course commenced in December 2023 with 36 students enrolled. This time the course was split into a Northern region and a Southern region. The only difference was that the Northern region visited Kepak Meats in Clonee, Co Meath for their final day and the Southern region visited Dawn Meats in Grannagh, County Waterford.

> The five-day course helps students plan and implement a dairy calf to beef system on their farms

## STUDENT PROFILE: Liam Doherty, Ballyallinan, Co Limerick

## 'You learned something new every day, especially when we got out onto the different farms in the evenings'

Until 2020 Liam Doherty from Ballyallinan, Rathkeale Co Limerick was calving over 50 suckler cows in the autumn on 37 hectares of land while also working off farm. "I kept a good limousine type cow and these were all Ai'd to a Belgian Blue and Limousine bulls," says Liam. "I sold directly off farm at approximately 8-9 months of age. Even though there is a lot of negativity around suckler cows, I was making a good income from them.

However after a few near misses at calving time, Liam decided to drop his cow numbers and contract rear 25 heifers for a local dairy farmer. "After the first year with the dairy bred heifers I couldn't get over how easy it was to handle these stock compared to suckler bred cattle," says Liam. "I decided to get out of suckler cows completely and rear dairy bred beef stock."

Liam enrolled on the first Advanced dairy calf to beef course in December 2022 which was based in the south west. "The main reason I decided to enrol on the course was that I was a bit apprehensive about rearing calves. Even though I was contract rearing dairy heifers, they were not coming to my farm untill they were fully reared. Rearing of calves on milk replacer was new to me."

Liam says he felt that the course was very practical and there was great interaction amongst the speakers and farmers on the course. "You learned something new every day especially when we got out onto the different farms in the evening, that's when you saw the theory coming into practice."

During the course Liam realised how important it is to make good quality silage. "To make sure cattle are hitting the required performance targets I need every bit of silage on the farm to be high quality, otherwise I have to bring in expensive concentrates to make up for it."

### Finishing cattle

Liam also found the last day of the course interesting as he didn't have much experience in finishing cattle. "From the course I got a good insight into what an animal should be, in terms of weight and appearance, before I start putting the animal on a finishing diet and then how to determine if an animal is fully finished or not."

In 2024 Liam bought 50 dairy beef calves in the spring along with the 25 dairy contract rearing heifers. On the 31st of August, these weanlings were weighed. The best of the calves weighed 300 kg and the batch averaged out at 221 kg which is well ahead of target. This performance is a credit to Liam's attention to detail.

STUDENT PROFILE: Gerald Kenny, Kinnegad, Co Westmeath

## 'The course is well worth doing – you will definitely pick up things that will make the difference on your farm'

Gerald farms 40 hectares of leased land just outside Kinnegad in County Westmeath. "I first dipped my toe into calf to beef farming in 2016 with the purchase of 20 dairy bred calves,"he says. Gerald has developed the farm so that he can now accommodate up to 120 calves each year.

"I buy about half the calves in the autumn from farmers and local marts," says Gerald. "I buy the rest in the spring. I prefer beef sired dairy calves and after trying many different breeds I have come to the conclusion that the Charolais and Angus calves are what suit this farm."

The majority off cattle are finished off farm at less than 24 months with the remainder being sold as forward store cattle. His carcass weights are impressive with his latest batch of heifers finishing at 22 months of age, weighing on average 300kg with some of the Charolais heifers killing out at over 330 kg.

been rearing calves for the previous six years, he felt that he might get a few ideas from doing the course. "If I took back one or two things from the course that might make the system less labour intensive or make it more profitable, attending the five days would be worth it."

Overall, Gerald says he feels he has learned a lot from the course and that he felt the final day of the course which focused on finishing the animals the most interesting.

### Factory visit

"We went to the factory in the morning and we got to see the animals go through from start to finish. It was interesting to see why overfat cattle or underfat cattle are not liked as they are harder to sell for the factories. Then in the afternoon we looked at finishing diets of cattle and we got to handle cattle that were at different stages of finish."

Since doing the course, Gerald says he is now making better use of his sible, if you have light animals coming into the shed after grass it's going to take a lot more meal to finish them, which is ultimately going to reduce the profit from these cattle."

Gerard believes that that the course would benefit any farmer who is thinking or already doing calf to beef on their farm, "The course is well worth doing, you will definitely pick up things that will make a difference to your farm."

***Another course is now planned to commence in December 2024. If you***

# Future-proofing a part-time beef enterprise in Tipperary

Investment in facilities, technology and business partnerships will ensure the future of Michael O'Donnell's calf-to-beef farm in south Tipperary.

**Alan Dillon**
Teagasc DairyBeef 500 Campaign Manager

Michael O'Donnell farms 48 hectares of good quality land near Clerihan in south Tipperary. The farm is split between 32 hectares of owned land around the farm yard with the balance leased nearby.

Michael works off-farm as an electrician and time is one of his main limiting factors. "I previously ran a suckler enterprise but found it difficult to be around to monitor calving of cows," he says. "My job means I can be off the farm for up to 10 hours per day."

Dairy calf-to-beef offered slightly more structure and routine to his working day. Michael's sister Joan and her husband run a dairy farm and had a ready supply of calves coming. They agreed that Michael would buy 110 calves, reared and vaccinated against pneumonia, at 9-10 weeks of age.

"As the calves come from a single farm, my exposure to disease is reduced. I can also have an influence over sires used on the cows in future," says Michael. "The herd is spring and autumn calving. For me, buying at both times spreads the work, improves cashflow, reduces risk and means I'm making better use of sheds."

Michael says he aims to work with the scource dairy farm further by agreeing sire criteria for beef bulls in order to influence the type of calves he will be purchasing.

### Sire criteria

- Greater than 10kg carcass for early maturing bulls, 20kg of carcass or greater for continental bulls.
- A Beef Sub Index, which is located within the Dairy Beef Index (DBI), will be set at a minimum of €100.
- Calving difficulty and gestation length will be decided by the dairy farmer as these are traits that will impact on him only.

Table 1 (opposite page) gives examples of the sires currently used to produce the cattle in Michael's herd.

All the calves from these sires fit the criteria. While there are some bulls with poorer carcass characteristics used that are outside this range, these will be weeded out in the next year and replaced by bulls of higher beef merit. These high beef merit bulls will deliver higher carcass weights at a younger age and help drive profit without requiring extra labour.

Current performance show steers

averaging 326kg with an average grade of O+ at 22 months while heifers averaged 265kg at an average grade of O= at 21 months. There is scope for improvement here but bear in mind the weather in 2023 reduced live weight gain of stock around the country. This should improve if the back end of 2024 and early 2025 stay dry and allow more days at grass.

Michael's whole farm performance is well above average with 511kg of liveweight output achieved per livestock unit compared to a national average of 295kg.

Per hectare, Michael is achieving over double the national average in live weight output at 971kg/ha. Michael runs a relatively high stocking rate at 1.91 LU/ha but results across the Teagasc DairyBeef500 demonstration farms and Teagasc research farms show that this level of stocking rate is required to achieve high profitability.

### Future-proofing the farm

Michael is completing development works that will future-proof him against any changes in slurry storage regulations, and the works will also reduce his workload.

"We are building a five-bay slatted shed with a covered feeding area on both ends that will allow me to feed with the diet feeder at both sides of the shed. I fill the diet feeder at night and empty the feeder along the feed passage the following morning before heading to work."

Michael is also considering adaptations to a hay shed in the event he may have to rear the calves himself in the future. This will involve getting the slopes in the floor correct to a fall of 1:20. The floor will slope from both sides of the shed into the middle where water will be able to drain away into a storage tank.

As the shed is very high and not a very warm environment for young calves, internal low roofs may need to be installed to create an optimum microclimate. Calves are not very good at retaining heat in the early stages of life and 8x4 sheets of plywood hinged to the existing walls will create a warmer area within the high roofed shed.

"If I go down the route of calf rearing, an automatic feeder will be installed to further reduce labour input," says Michael. "The shed floor will need to be designed to accommodate this while also ensuring the shed can be cleaned out easily with a tractor and loader and also that the shed can be used for storage of machinery and hay or straw when not rearing calves."

**Table 1:** Example of sires on cattle in Michael O'Donnell's herd

| Sire AI code | Breed | DBI € | Beef sub index € | Carcass wt kg | Calving diff % (dairy cow) |
|---|---|---|---|---|---|
| LM2010 | LM | 120 | 162 | 24.1 | 4.7 |
| BB5226 | BB | 143 | 188 | 31.8 | 6.5 |
| CH4321 | CH | 138 | 193 | 42.6 | 5.5 |
| BB4438 | BB | 53 | 174 | 29.8 | 8.7 |
| AA4640 | AA | 143 | 112 | 14 | 3.1 |

Michael O'Donnell and Teagasc's Sean Cooney

## A system in development: 'Farm work has to fit around my main occupation'

While Michael has made great strides in changing his system from a suckler unit to a dairy beef unit, the next few years could bring about more changes if calves are to be reared at a younger age on farm, and carried through to slaughter.

Cattle performance is relatively good with a high level of output achieved. There is, however, more opportunity to improve the system and deliver greater output from grass.

Any changes to the farm in terms of system will have to ensure labour requirement is not exceeded beyond what is achievable.

"I love farming but farm work has to fit around what free time I have outside of my main occupation," says Michael, whose situation is similar to that of many beef farmers.

Technology, planning and appropriate facilities can ensure part time farming is feasible from a work point of view and, equally important, also a profitable enterprise.

Many sheep farmers have faced challenges in managing ewe condition this year.
\ Donal O'Leary

# Managing the flock after the rams have done their duty

## Flock management post-mating can have a big impact on animal longevity and the sheep farmer's bottom line.

**Ciaran Lynch**
Teagasc Sheep Specialist

How you manage breeding ewes, rams and replacements over the coming weeks and months will impact next year's performance, animal longevity and overall profitability. There are a couple of key areas to consider.

### Ram management

Firstly, let's look at ram management towards the end of the mating period and their aftercare. Rams are a sizeable investment for any flock owner and unfortunately their longevity (or lack of it) within flocks often causes problems, so the following factors and solutions should be considered.

- Prolonging the joining period (e.g. beyond six weeks). Not only does this protract the lambing period for a small number of tail-end ewes, it also poses greater risk of injury to rams. Rams are more likely to fight each other as mating activity declines.
- Once removed, confine the rams that have been gathered up into a tight space, such as a pen or livestock trailer for several hours.
- Turn the rams out into a fresh field of grass in the evening time. When hungry they are more inclined to eat and generally they will not fight in the dark.
- Treat them for health issues such as lameness, stomach worms (ram lambs) and fluke where necessary.
- Rams can pick up knocks and other injuries during the mating period, check them for damage to the brisket or other injuries sustained during the season and treat appropriately. Don't forget to include the rams in the annual clostridial/pasteurella booster programme.
- An active ram can lose as much as 15-20% of his bodyweight, 10-25kg, over a five to six week mating period. Rapidly regaining bodyweight will greatly improve a ram's chances of surviving the winter. Supplementing with 0.5kg of concentrates per head per day will go some way towards this. Providing 25 to 30kg of concentrate supplementation is a small investment relative to the cost of replacing a ram.

## Managing ewe condition

One of the challenges on many farms this year has been managing ewe condition. This results from a difficult season in 2023 when many ewes went to the ram in less than ideal condition. This, in turn, had a carryover effect on performance in the early part of the year.

When we combine this with lower than average grass growth rates, many farms have struggled to regain sufficient condition this year prior to ram turnout. This poses a management challenge and can develop into a vicious cycle if left unchecked.

Typically, over the coming weeks as grazing conditions become more difficult and forage supply and quality declines, ewes will tend to lose some condition. This needs to be kept to a minimum, especially for those ewes which were in lower body condition to start off with.

The situation on farms is similar to last year, however with some changes in management you can minimise any further loss of condition.

When we review what happened ewes on a number of BETTER farms last year (see Table 1). We can see that from the average body condition score that some of the flocks were struggling.

An even more important figure is the percentage of ewes that had a body condition score of less than 3. For some flocks this was high and addressing it proved challenging.

> Many ewes went to the ram in less than ideal condition in 2023 and many farms have struggled to regain condition this year prior to ram turnout. This poses a management challenge and can develop into a vicious cycle if left unchecked

This had a direct impact on pregnancy scans last spring. Flocks with thinner ewes had lower litter sizes. How the flock was managed post-mating also had an impact on their performance.

Another figure, also in Table 1, is the change in the number of ewes in BCS less than 3 between ram turnout and scanning. Most of the flocks (Farms 3 to 6) were able to keep body condition loss between ram turnout to scanning to a minimum.

Only 3% more ewes in a BCS of less than 3 at scanning. One flock was able to increase ewe condition. This was achieved by making a few key management changes. So what did these farms do differently?

- They focused on under conditioned ewes within the flock – these are the ones most likely to cause problems.
- They kept on top of routine health treatments – eg for lameness and fluke.
- They separated out thinner ewes and in some cases (e.g. those with dental issues) housed them early.
- They managed thinner ewes separately inside, with additional supplementation given earlier.

In two flocks, ewe condition decreased more significantly (Farms 1 & 2). This can be attributed to two main factors.

There was an unchecked outbreak of lameness in both cases that was difficult to clear up.

In addition, Farm 1 did not house ewes early enough when feed supplies outdoors were tight. This posed a challenge for both these flocks in the run up to lambing. It's something they aim to avoid this year.

Rams are a sizeable investment for any flock owner and unfortunately their longevity (or lack of it) within flocks often causes problems.

**Table 1:** Change in body condition score in lowland flocks – mating to scanning

| | Farm 1 | Farm 2 | Farm 3 | Farm 4 | Farm 5 | Farm 6 |
|---|---|---|---|---|---|---|
| Average ewe BCS | 2.9 | 3.1 | 3.1 | 3.25 | 3.3 | 3.4 |
| Ewes less than BCS 3.0 (%) | 50 | 30 | 30 | 11 | 8 | 7 |
| Change in ewes less than BCS 3.0 (%) | 22 | 13 | 3 | 3 | 3 | -13 |

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There are opportunities to significantly reduce the labour involved in managing a sheep flock.

# Labour on sheep farms – we need your opinions

**Damian Costello**
Teagasc Sheep Specialist

The amount of work involved has always been acknowledged as a key challenge in running a successful sheep enterprise.

More and more sheep farms are now being managed on a part-time farming basis. This means labour efficiency is now, more than ever, a critical element of future proofing our sheep industry.

Teagasc are conducting a major study into labour on sheep farms and are reaching out to sheep farmers for input. The study aims to identify the major labour issues sheep farms encounter as well as highlighting the areas where labour saving improvements can be made.

## Completing the survey

The link/QR code will take you to the online version of the survey. The survey, which takes 10 – 15 minutes to complete, is totally anonymous and no personal data is being collected. There is also an option of completing a paper version of the survey by contacting your local Teagasc sheep advisor.

The following are among the key pieces of information the study aims to collect:

- Respondents farming system and extent of sheep enterprise.
- Time devoted to sheep farming and specific challenges such as farm fragmentation etc.
- Sheep handling facilities – what's there and what could be improved on.
- Sheep housing facilities – how your flock is over wintered and labour efficient housing systems.
- Getting farmers to identify areas/tasks that are the biggest draw on labour.
- From lambing right through the production cycle – what are the most labour intensive tasks and outlining what the most labour efficient farms are doing differently.

## Importance of the study

There are many aspects of sheep farming that require hard graft but equally there are opportunities to significantly reduce the labour involved in managing a sheep flock.

The study is an important piece of work in identifying the gaps that exist. Hopefully it will provide guidance as to how labour efficient sheep farming systems operate. Furthermore, the results could be used to influence future policy on supporting sheep farmers in improving labour efficiency. All sheep farmers are urged to have their say in this important study.

Scan the QR code below to access the Teagasc Labour on sheep farms survey:

**Scan the QR code if you prefer to do the survey or prefer to contact your local Teagasc adviser.**

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# Are you ready for the 'five-minute cash flow' challenge?

Farmers are a resilient breed. They cope with whatever comes up and manage to carry on. But with increasingly unpredictable weather and prices, volatility is rising and proper financial planning has never been more important.

**Owen Power**
Teagasc Farm Management Specialist

What is cash flow? It is simply a measure of the movement of money in and out of the business. If the bank account is always in credit, the cash flow is positive. This is the ideal situation. Cash flow management is central to business success.

If start-up businesses fail, it is almost always because they run out of cash and are driven into bankruptcy by banks and creditors. Cashflow is the lifeblood of farm businesses too.

In good price years, it is important that cash flow is managed to build cash reserves and to undertake necessary on-farm improvements. In poor price years, cash flow must be managed to ensure that all essential bills are paid (including living expenses) and that no long term damage is done to the business due to a cash shortage.

## Budgeting

Creating a cash flow budget can appear a daunting task. The Teagasc '5 Minute Cash Flow' budgeting tool is an ideal way to start to improve your financial management. It is available on the Farm Management section of the Teagasc website (follow the QR code link at the end of this article to watch a video on how it works.)

Remember that budgeting is not an exact science and that in most cases a 'best estimate' is better than 'no estimate'.

## Options where cash is tight

**Immediate Priorities** The main priority is to minimise non-essential spending until such times as cash income improves. The following are the main areas to examine to try and bridge the gap between income and spending:

– Prioritise essential living expenses

– Eliminate all non-essential expenditure, both farm and personal spending.

**Review financial repayments / commitments**

(a) Examine the option of reducing bank repayments by either availing of a temporary interest-only period or extending the term on existing loans (where feasible).

A cardinal rule of finance is that you don't use short-term finance to pay for long term investments.

(b) Where machinery leasing or hire purchase agreements are evident, consult with your finance provider to examine ways of reducing monthly repayments on a temporary basis where possible.

(c) Engage with your merchants/ farm input suppliers and keep them informed.

Examine the potential for structured repayments to avoid paying excessive penalty interest on overdue accounts.

**Review monthly pension, savings and life assurance payments**

Look at pension / savings policies: can some of these payments be reduced?

Before taking this course of action ensure you are fully informed of the implications (penalties for example) of amending or cancelling existing plans.

**Talk to your accountant NOW**

Use their expertise to review your cash flow in relation to taxation / financing implications And involve all family members in analysis & solutions where possible.

## Methods to bring in cash

– **Sale of trading stock**

Target beef cattle/stores for sale/ early sale of cull stock especially where you may be tight for fodder.

– **Cash in policies/savings** Take advice from your broker/accountant on this.

– **Off-Farm income.**

– **Examine sale of assets in extreme circumstances.**

– **Look into availing of Social Protection payments:**

(a) Family Income Supplement (if spouse/farmer employed off farm).

(b) Farm Assist.

(c) Pension entitlement.

## Other issues to address

• Review the main efficiency factors on your farm, where can you get the best return for your efforts. Don't be forced to cut 'productive costs'.

• Take account of price volatility in all future plans.

• Look at growing crops that will return a premium with a known market.

• Work out your own production costs and keep an eye on the "futures" market.

• Consider the tax incentives of leasing out land where there is no successor.

• Re-evaluate renting land based on soil fertility and yield potential.

## Learn more

*Follow this QR link to wtach a step-by-step video on how the Teagasc 5-Minute Cash Flow budgeting tool works.*


The Teagasc Profit Monitor gives you a comprehensive breakdown of your financial figures and allows you to link the technical and physical performance on the farm to the financial performance.

By highlighting strengths and weaknesses it shows the impact that improvements in technical and physical efficiency can have on the overall profitability of the farm.

Other benefits are that it allows you to compare your farm performance with other farmers nationally or in your discussion group. This will allow you to more clearly identify the steps that you can take to improve farm profitability.

### Flexible measures

A new set of revised group reports have greater flexibility in what measures can be shown. Also, financial and physical /technical measures can now be grouped on the report to make the information more meaningful and make benchmarking easier.

Teagasc Profit Monitor reports can help farmers assess their farm financial performance in a number of ways. The system is focused on giving individual farmers and their advisors a confidential analysis that is accurate, timely and useful in setting targets for change for the coming year.

The long established ability to check on farm output, costs and profitability has been improved further allowing farms to look in detail at areas such as animal health and veterinary costs, young stock rearing costs and dairy stock rearing charges.

An analysis on the farm labour input to run the farm business, from both paid and unpaid labour, is also looked at in detail on the reports. The farm cash flow position is also presented on a dedicated cash flow report.

Contact your advisor over the next few weeks about getting a profit monitor completed for the 2024 production year. It's the ideal time to get this job done - just as the last production year is winding down and before the gears start spinning on the next year.

*If you would like to complete a Teagasc Profit Monitor, contact their local Teagasc Advisory Office or email profit.monitor@teagasc.ie also Visit www.teagasc.ie/profitmonitor for more information.*

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## CASE STUDY: Allen Cullen & Liam Barron, dairy farm partnership in Kilmacthomas, Co Waterford

Teagasc advisor Eanna Loughrey with Allen Cullen.

# 'We are running a commercial business so we need to know how much it costs to produce every litre of milk on our farm'

Alan Cullen milks 140 cows in a partnership with Liam Barron on a 50Ha block of leased land, close to Kilmacthomas in Co Waterford. They employ one man to operate the enterprise.

"At the start of each year we prepare a budget," says Alan. "This budget helps us make decisions for the year ahead and we have a clear knowledge of how money will move in and out of the business. This is critical in times of volatility and provides us with certainty around meeting commitments associated with new investments."

### Cash flow

The Teagasc Cost Control Planner/ Cash Flow budgeting which Alan and Liam use has played a central role managing cash flow on the farm. Two rental payments and an employee salary are significant components in the cashflow.

"We record all income and payments for the farm on a monthly basis," says Alan. "Entering the data is fast and straightforward when all receipts, invoices and bank statements are kept in order."

The more detail that is entered in the Cost Control Planner the more detail is obtained from the reports. "The first years completing the programme were eye-opening, seeing where all the money was going out of the business," says Alan.

### Value for money

"This really focused our minds on farm spending and helped identify areas where the farm is getting value for money. The Cost Control Planner is impartial, no one can argue with the outcome as everything is recorded.

"While the primary reason for completing the Cost Control Planner is for our own farm business, it is also very useful to benchmark against other members of our discussion groups.

"It highlights any strengths and weaknesses. As farmers, we are running a commercial business and should be aware of how much it costs to produce every litre of milk on our farm. "At this time of the year when grass budgeting we aim to have a sufficient closing cover for the following year. We also like to have a sufficient cash flow reserve of €400 to €500 per cow for the following year.

"We have had situations where we have had to make parlour repairs and then machinery repairs in a short space of time…I wouldn't like to be going into expensive overdraft financing to pay for such costs.

### Financial buffer

"This buffer (you could also describe it as a rainy day fund) allows the farm to operate for the first three to four months of the following year without depending on the overdraft when there is very little income coming into the farm.

"When the Cost Control Planner and Cash Flow Budgeting is completed it allows for data to be easily submitted to complete the Teagasc Profit Monitor for that year."

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If you would like to use the cost control planner, contact your Teagasc advisor who will set you up.

**John Pettit**
Teagasc Business & Technology Advisor, Johnstown Castle

**Ciaran Collins**
Teagasc Crops Specialist, Moorepark

John Pettit and David Kehoe inspect a crop of winter rye.

# The many benefits of crop rotation

## Met Eireann, CSO,Teagasc and industry data has helped quantify the benefits crop rotation has delivered on south Wexford tillage farms

As soon as Charles 'Turnip' Townshend began practising his four-course rotation of wheat, turnips, barley and clover in England in the 18th century, yields increased. Today we know why. Crop rotation offers ecological, integrated pest management, cost savings and risk management benefits.

This article evaluates Met Eireann, Central Statistics Office (CSO), industry and Teagasc data to quantify the contribution of rotation to arable farming businesses in south Wexford in recent years.

Success for an arable farmer has always been hugely influenced by the weather. Table 1 (below) shows that recent years have seen shifts in rainfall levels at Teagasc Johnstown Castle. Rainfall in February and March has pushed more spring drilling into April and even May.

Crops drilled in late April and May will generally have lower yield potential. Meeting protein specifications for malt barley will be more difficult to achieve. Failing to meet the malt specifications, with a lower yielding crop, is a double hit to the crop's margin.

### Increased rainfall

The amount of rainfall in September, October and November has also increased significantly. Establishing winter crops is therefore more challenging.

Recent years have seen too many poorly established crops due to significant rainfall soon after drilling.

Growing a variety of winter and spring crops increases the opportunities to drill crops in appropriate conditions and within the optimum timeframe. The result is higher crop yield and quality.

Drilling significant areas of individual crops in a short timeframe creates narrower harvesting windows. This inevitably results in crops being cut late, increasing the potential for yield losses and failure to meet market specifications.

Table 2 (page 28) looks at 'days of rainfall' at Johnstown Castle over three harvesting periods.

Between 2022 and 2024 the month of August had on average 12.3 days with

Continued on p28

**Table 1:** Johnstown Castle Rainfall (mm)

| Year | Jan | Feb | Mar | April | May | June | July | Aug | Sept | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2021 | 144.5 | 122.4 | 32.7 | 12.3 | 129.8 | 26.3 | 78.3 | 60.5 | 57.7 | 193.5 | 96.7 | 181.9 |
| 2022 | 22.7 | 96.8 | 90.1 | 39.2 | 62.1 | 72.5 | 24.4 | 32.2 | 123.1 | 159.3 | 163.5 | 110.7 |
| 2023 | 93.2 | 7.4 | 149.0 | 50.9 | 41.8 | 48.5 | 124.7 | 87.5 | 178.4 | 265.0 | 279.0 | 152.2 |
| 2024 | 110.8 | 136.2 | 153.7 | 132.9 | 76.8 | 39.9 | 58.5 | 68.7 | 108.4 | - | - | - |
| Average | 92.8 | 90.7 | 106.4 | 58.8 | 77.6 | 46.8 | 71.5 | 62.2 | 116.9 | 205.9 | 179.7 | 148.3 |
| LTA | 103.4 | 75.5 | 79.0 | 70.4 | 67.6 | 72.6 | 72.8 | 85.7 | 87.7 | 122.1 | 115.3 | 109.8 |
| Diff. | -10.6 | 15.2 | 27.4 | -11.6 | 10.0 | -25.8 | -1.3 | -23.5 | 29.2 | 83.8 | 64.4 | 38.5 |

Difference (Diff) = Long term average – 2021 to 2024 Average

**Table 2:** Days with no rainfall at Teagasc Johnstown Castle

| Date | 2022 | 2023 | 2024 | Average |
|---|---|---|---|---|
| 15/07 - 31/07 | 11 | 3 | 7 | 7.0 |
| 01/08 - 31/08 | 19 | 8 | 10 | 12.3 |
| 15/09 - 30/09 | 9 | 1 | 3 | 4.3 |
| **Total** | **39** | **12** | **20** | **23.7** |

no rainfall. This ranged from eight days in 2023 to 19 days in 2022.

This highlights the risk associated with harvesting a significant area of one crop.

If the same crop was drilled within 10 days, from start to finish, the optimum harvesting period is shortened further, compounding the problem. Drilling crops like winter wheat expands harvest opportunities.

Winter barley, winter oilseed rape and spring beans extend the harvest window into July and September increasing the days without rainfall from 12.3 to 23.7 days on average between 2022 and 2024. By expanding drilling and harvesting opportunities you also use your labour and machinery much more efficiently realising cost savings.

### Herbicide resistance

Another challenge is the increasing difficulty in controlling weeds in winter and spring cereals. Herbicide resistance is increasing. Testing at Teagasc Oak Park has found herbicide resistance to weeds including blackgrass, Italian rye grass, annual meadow grass, wild oats, chickweed, speedwell, corn marigold and poppies.

One of the most significant factors causing resistance is the repeated use of herbicides from the same chemical group. This occurs from the frequent, or continuous, growing of the same cereal crop in the same field year after year. This creates ideal conditions for resistant weed populations to develop.

We have seen an increase in herbicide resistance to chickweed and wild oats in recent years, especially in continuous spring barley fields. Resistant wild oats is a growing concern in continuous spring barley.

The 2023 testing of suspected resistant wild oats in Teagasc revealed that 10 out of 14 populations tested were ACCase resistant (Axial, Falcon, Stratos Ultra), while none were ALS (Pacifica Plus) resistant.

Chickweed is another problematic weed that has developed resistance, particularly to sulfonylurea herbicides, which are commonly used in spring barley. Samples submitted to Teagasc in 2023 were not controlled by sulfonylurea herbicides (Ally Max, Pacifica Plus and Broadway Star).

A key aspect of crop rotation is the decreased dependence on the same herbicides for weed control. Break crops like oilseed rape and beans offer the chance to control troublesome grass weeds such as bromes, wild oats and annual meadow grass with herbicides from different herbicide groups to those used in cereals.

A mix of spring and winter cereals helps to diversify the chemical groups used to control weeds and to slow the development of resistance.

## CASE STUDY: David & Rebecca Kehoe, Ballymurn, Co Wexford

# 'I don't have all my eggs in one basket – it's a question of spreading the risk'

David Kehoe and his wife Rebecca farm an arable enterprise in Ballymurn south of Enniscorthy in Co Wexford. Land farmed is generally within a 12km radius of the farmyard. Crops are established with both a plough and non-inversion tine cultivator.

Crops on the farm include winter wheat, winter barley, winter rye, winter oats, winter oilseed rape, spring beans, spring malting barley and maize.

"I have adopted a combined spring and winter crop rotation on the farm since 2011," says David. "The primary reason for adopting this rotation at the time was I had a variety of soil types and not are all were suited to spring barley. Also, winter crops within a rotation offered a more attractive and sustainable margin.

"Another attraction of growing a mixture of crops is I did not have all my eggs in one basket. It's a question of spreading risk. In recent years I have expanded the range of crops by adding winter rye and maize."

### Issues with grassweeds

"Many arable growers locally have issues with grassweeds including sterile brome, canary grass and resistant wild oats. Thankfully, I have none of these weed problems, which is a consequence of growing a mixture of crops. Since COVID-19 the cost of machinery has risen sharply and good labour is harder to access. Growing a mixture of crops has enabled me to spread my workload and utilise available machinery and labour more efficiently. It is probably fair to say that I am a believer in 'You reap what you sow'!"

**David Kehoe with John Pettit. Crops on the farm include winter wheat, winter barley, winter rye, winter oats, winter oilseed rape, spring beans, spring malting barley and maize.**

# Drilling down into the crop rotation data

In Table 3 (below) the spring malt barley data is based on 80% of the grain meeting the malt market specification with the remaining 20% entering the animal feed market. Crops that consistently perform above the mean margin included winter wheat, spring malt barley and winter oats.

Spring malt barley was less profitable than winter wheat in 2020, 2021 and 2022. In 2020 and 2021 this can be attributed to lower premium prices than the 2020 – 2024 average. In 2023 and 2024 spring malt barley was more profitable than winter wheat.

In 2023 this can be attributed to a higher premium price than the 2020 – 2024 average while in 2024 it can be attributed to poor winter wheat yields.

The financial performance of one crop in comparison to another varies between years. This fluctuation is driven by yield variations due to the influence of weather and prices for grain and straw.

## Risk reduction

By growing a variety of crops you reduce your risk. If one crop performs poorly another may perform well. This helps to provide a more consistent financial return between years. The average margin of winter oilseed rape at €636 per hectare was the lowest among crops. To achieve an attractive margin for winter oilseed rape in comparison to alternative crops it has to both yield well and have a desirable price per tonne.

## Six-year crop rotation

Crop margins should be evaluated over the course of a rotation. The following tables look at three different crop rotation: a winter crop rotation, a continuous malt barley rotation and a combined winter and spring crop rotation.

Over the course of a six-year rotation, spring malt barley (SMB) is €60 per hectare more profitable than a winter crop rotation and €37 per hectare more profitable than a combined winter and spring rotation.

When comparing the profitability of rotations, the short and longer term risks and opportunities associated with each, should be considered.

Crop rotation with a variety of winter and spring crops can be both practical and economically beneficial by spreading risk, spreading workload, increasing machinery and labour capacity.

The experience of tillage farmers in south Wexford shows that when good crop rotation are implemented economic benefits follow.

**Winter Wheat delivered the highest average margin per hectare from 2020-2024.**

**Table 3:** Crop Margins (€/ha)

| | 2020 | 2021 | 2022 | 2023 | 2024 | Average |
|---|---|---|---|---|---|---|
| Winter Barley | 419 | 1,167 | 1,160 | 86 | 412 | 649 |
| Winter Wheat | 834 | 1,285 | 1,999 | 415 | 515 | 1,010 |
| Spring Feed Barley | 457 | 945 | 1,432 | -20 | 387 | 640 |
| S Malt Barley 80% Passed (SMB 80%) | 637 | 1,118 | 1,924 | 495 | 673 | 969 |
| Winter Oats | 614 | 986 | 1,799 | 308 | 764 | 894 |
| Spring Beans | 200 | 831 | 1,489 | 731 | 436 | 737 |
| Winter Oilseed Rape (WOSR) | 305 | 1,148 | 1,422 | 89 | 218 | 636 |
| Average | 495 | 1,069 | 1,603 | 301 | 487 | 791 |

**Table 4:** Price Malt v Feed (€/tonne)

| Year | Spring malt barley | Spring feed barley | Difference |
|---|---|---|---|
| 2020 | 187 | 159 | 28 |
| 2021 | 243 | 211 | 32 |
| 2022 | 385 | 306 | 79 |
| 2023 | 290 | 203 | 87 |
| 2024 | 240 | 190 | 50 |
| Mean | 269 | 214 | 55 |

**Table 5:** Six-year crop rotation comparisons

| Year | Crop | Margin (€/ha) | Year | Crop | Margin (€/ha) | Year | Crop | Margin (€/ha) |
|---|---|---|---|---|---|---|---|---|
| 1 | W OSR | 636 | 1 | SMB (80%) | 969 | 1 | S Beans | 737 |
| 2 | W Wheat | 1010 | 2 | SMB (80%) | 969 | 2 | W Wheat | 1010 |
| 3 | W Oats | 894 | 3 | SMB (80%) | 969 | 3 | SMB (80%) | 969 |
| 4 | W Wheat | 1010 | 4 | SMB (80%) | 969 | 4 | W Oats | 894 |
| 5 | W Oats | 894 | 5 | SMB (80%) | 969 | 5 | W Wheat | 1010 |
| 6 | W Wheat | 1010 | 6 | SMB (80%) | 969 | 6 | SMB (80%) | 969 |
| | Mean | 909 | | Mean | 969 | | Mean | 932 |


Wendy Conlon, Teagasc equine specialist; Alan Creighton, head of environment and nutrition, Irish Equine Centre, Vivienne Duggan, associate professor of equine medicine at the School of Veterinary Medicine, UCD. Picture: John Ohle

A new series of Teagasc videos made in collaboration with the equine industry addresses all aspects of horse health from breeding to end-of-life choices.

**Wendy Conlon**
Teagasc Equine Specialist

# Equine health: prevention is better than cure

Whether horses are used in sport, for leisure or for breeding purposes, responsibility for their welfare rests on the shoulders of those who own, breed, train, ride and care for them. The equestrian world must maintain and strengthen its 'social licence' for it to have a future.

This means that the welfare of the horse must be put first and be seen to be put first, all of the time. It is the responsibility of everyone involved in the care of equines to demonstrate this.

All who manage equines for breeding, sport and leisure must ensure they know how their horse, pony or donkey's welfare is affected by their approaches to breeding, care and management, disease prevention, training, use of tack & equipment, transport, and end of life choices.

With the spotlight on disease prevention, the consistent strategic focus must be to protect the health of the national herd, in which all involved in the sector have an important role.

The old adage 'prevention is better than cure' has never been more relevant than in a time when anthelmintic (anti-parasitic drugs) and antibiotic resistance remain challenging.

## 'One health and one welfare'

The concept of 'one health and one welfare' also recognises that the health and welfare of people is deeply connected to the health and welfare of animals and the health of the environment. Reducing the incidence of disease or ill health, and the spread of infection where disease occurs, must always be to the forefront of equine health management.

Teagasc, The Irish Equine Centre, and University College Dublin's School of Veterinary Medicine joined forces with industry ambassadors Cathal Beale (Irish National Stud); Sarah Ennis (Sarah Ennis Eventing), Neilus Hayes (Knockainey Stud), Andrew Hughes (Ennisnag Stud), Cian O'Connor (Karlswood Stables), John O'Connor (Ballylinch Stud), and Richard Sheane (Cooley Farm) producing a video series '10 practical steps to protecting equine' health.

The messages encapsulated are relevant to the care of ALL equines in the national herd. Other farms who

provided locations to film are Dermot Weld Racing, Gordon Elliot Racing, Ross O'Sullivan Racing and Staffordstown Stud.

Contributor Vivienne Duggan, Associate Professor of Equine Medicine at the School of Veterinary Medicine UCD emphasises: "It is increasingly difficult to kill pathogens and treat infectious disease when we really need to. Antibiotics and anti-parasitic drugs are simply not as effective as they once were. We must place more emphasis on disease prevention.

"A very important element of this approach is ensuring equines have a 'clean' environment to inhabit, and 'hygienic' high quality feed, water and bedding sources. The best prevention of asthmatic conditions and optimisation of respiratory health overall is to decrease exposure to dust in the environment while also providing well-ventilated spaces."

### Biosecurity

Head of Environment and Nutrition at the Irish Equine Centre, Alan Creighton emphasises "a balanced approach to biosecurity is necessary.

"We cannot sterilise everything, nor should we. Non-pathogenic microbes are also essential to life. However, preventing illness can be achieved by ensuring equines are never faced with an overwhelming challenge risking illness.

"Targeting the hygiene of high traffic zones in the stable yard (foaling boxes, stocks, mechanical walkers, transport vehicles) and at pasture (gateways; feed/water trough areas) while engaging quarantine practices, controlling stocking densities, and separating animals into small groups of similar risk category goes an awful long way to preventing illness/disease."

Whether you own a child's pony or an international sport horse, have a private or public stud farm, train point to pointers or racehorses, own donkeys or happy hackers it really doesn't matter – infection or disease will treat each with equal disdain.

The role of owners, managers, grooms, caretakers, riders, health professionals, and all who care for their most basic needs is to pay attention to the small things first, which lay the foundations for healthier horses in the longer term, and protect your pocket in the process.

*Follow the link from this QR code to view the videos or watch on YouTube (search for 10 Steps to Protect Equine Health).*

## Key messages

- Prioritise stable (housing) hygiene
- Separate different categories of stock
- Be disciplined in quarantine protocols
- Provide hygienic storage for concentrate feed
- Provide a clean 'breathing zone'
- Ensure adequate ventilation
- Take care with paddock hygiene
- Assess forage and bedding hygiene, and provide suitable storage facilities
- Pay attention to water quality
- Pay close attention to the hygiene of all 'high traffic' zones

## From the horse's mouth: industry ambassadors have their say

**Cathal Beale CEO Irish National Stud and Gardens:** "We've greatly reduced the incidence of respiratory and scour infections by implementing a good hygiene routine here at The Irish National Stud. Through experience we've learned that effective prevention and control of disease spread requires constant disinfection of handling stocks and transport vehicles."

**Andrew Hughes breeder, producer and manager of Ennisnag Stud:** "Our separation of animals is very important. We have one section (off the farm) for all of the riding horses, another for all the broodmares, and another for all the youngstock (by age group)."

**Sarah Ennis trainer coach, five star event rider and Olympian:** "Financially if we got something (disease) in here (on the farm) it could cause havoc. So we just have to be so careful."

**Cian O'Connor international showjumper and Olympian, producer and coach at Karlswood Stables:** "At Karlswood we take hygiene in general very seriously. The horses are only going to be as good as what we put into them."

**David Roche assistant trainer at record-breaking De Bromhead Racing:** "If we don't achieve a good clean environment, we don't train winners, we don't have runners, our vet bills go up, and that's not what we want – we're here to train winners."

**John O'Connor MVB MRCVS vet and managing director at Ballylinch Stud:** "We believe improvement in air quality can only be of benefit. Respiratory health at a young age is extremely important."

**Neilus Hayes breeder and owner of group winning progeny at Knockainey Stud:** "We were having a fair few problems with sick foals in conjunction with vets and the Irish Equine Centre we decided to get horses off the land when it got very wet and foals are much healthier now than for the few years we were having the problems."

**Richard Sheane producing and selling sport horses internationally from Cooley Farm:** "The most important day for me is when the horse is at the vetting. If they make 'a noise' I don't get money."

**Kerrie Kavanagh senior microbiologist at Irish Equine Centre:** "Waters that show the presence of high bacterial count, E.Coli and coliforms, faecal bugs or (with a) chemical and mineral analysis outside of the recommended levels, have a direct impact on the health and performance of the horse."

# Growing organics: row by row

**William Deasy**
Teagasc Specialist Vegetable Advisor
Pictures: Mark Moore, Ray Ryan

The Growing Organics Monitor Farm Programme led by Teagasc and supported by the Department of Agriculture Food and the Marine (DAFM) focuses on supporting and growing Irish organic production in step with the National Organic Strategy.

Twelve organic farms have been selected across the country to demonstrate best practice and to improve knowledge exchange and technical advice. In this article we profile two established organic vegetable growers – Emmett Dunne of Leo Dunne Ltd. and Ó Duinn Organacha, Co Laois, and Kenneth Keavey of Green Earth Organics, Co Galway – who are the organic demonstration farms on the programme.

## PROFILE: Emmett Dunne, of Leo Dunne Ltd and Ó Duinn Organacha, Co Laois

The Dunne family have been growing vegetables in Durrow, Co Laois, and the surrounding area for four generations and they have become synonymous with producing high quality carrots.

"We began organic production in 2000," says Emmett. "This season we are growing 30 acres of organic carrots, 100 acres of organic potatoes, 20 acres of organic leeks and five acres of organic kale."

In total, Emmett has 550 acres of land in his organic rotation, the majority through long term leasing, which also includes 150 acres of winter and spring oats, 70 acres of beans and 75 acres in clover. "Accessing certified organic land suitable for vegetable growing can be challenging but we work well with other farmers in the locality, including tillage and sheep farmers, who utilise our crops as break crops in their own rotations."

"Crop planning is vital in the seven year rotation, including cover crops, for managing soil fertility and weeds, pests and diseases," says Emmett.

Emmett Dunne and William Deasy assess maturity, size and shape of organic carrots.

Supermarkets are the main route to market. "Dunnes Stores have been very committed in their continued support of our organic produce," says Emmett.

Wholesale is another important market channel and Emmett works closely with a number of other organic growers and fresh produce partners for retailers.

In addition to own grown organic crops, certified organic produce is sourced from outside Ireland for continuity of supply.

Grading and processing quality organic carrots.

### Growing season

Organic oats are produced for Flahavan's. The company employs 30 packhouse staff and seven full-time farm staff with an additional 15 workers hired for weeding and five for planting during the growing season.

Coupled with the multi-generational knowledge and experience that has been amassed over the years, there has been significant investment in mechanisation (e.g. a fleet of tractors, GPS guidance systems, camera-guided weeder, self-propelled and trailed harvesters), storage and packhouse facilities with innovative equipment for washing, grading, sorting and packing.

Leo Dunne Ltd. and O'Duinn Organacha are certified by the Irish Organic Association and Organic Trust and accredited by Bord Bia Sustainable Horticulture Assurance Scheme.

Kenneth Keavey delivers organic veg boxes nationwide.

## PROFILE: Kenneth & Jenny Keavey, Green Earth Organics, Co Galway

Kenneth and Jenny Keavey started Green Earth Organics in 2006 after two years of organic conversion and delivering vegetables locally around Galway from the family farm near Corrandulla, Co Galway.

Today, the company has grown significantly and delivers certified organic produce nationwide. "We have been growing organic vegetables here on our farm in Galway for nearly 20 years and sustainability plays a huge part in everything we do, as does our commitment to sustainable local food," says Kenneth.

"We strive to minimise or eliminate the small amount of plastic packaging remaining in some of our boxes, and we also have a box that contains 100% Irish veg."

Online sales and home delivery through a vegetable box delivery scheme is a key route to market for Green Earth Organics and this direct sales market channel has been core to their successful growth over the years "We can deliver boxes of fresh produce and groceries to thousands of homes across the country every month," adds Kenneth.

### Logistics & marketing

"In recent years, we have invested significantly in our website and technology systems for managing operations like produce procurement, logistics and marketing." Kenneth currently has around 25 acres of certified organic land in the rotation, including field crops, grass/clover and six polytunnels, with a further 10 acres of native woodland and wildlife habitat.


A crop of organic leeks.

A wide range of organic vegetable crops are produced including Brassicas, Alliums, root crops, tomatoes, lettuce and other salad leaves.

"To supplement our own grown organic vegetables and to meet the demand for local Irish produce, we work closely with a network of other Irish suppliers and growers of organic fruit and vegetables," says Kenneth.

Certified organic produce is also sourced from outside of Ireland to ensure supply for customers year round.

Forty five staff are employed across the farm, packing and administration teams, with additional seasonal workers, students and interns taken on at busy times.

Green Earth Organics is certified by the Irish Organic Association.

## Strategic ambitions for organic food horticulture production in Ireland

Sales of organic vegetables and fruit continue to increase year-on-year in Ireland. The recently launched National Irish Organic Strategy 2024-2030 emphasises the growing market demand for organic fresh produce.

It states that "considerable potential for growth exists given the expected increase in demand on the Irish market for organic fruit and vegetables." (National Irish Organic Strategy 2024-2030)

Organic fresh produce is one of the main food choices made by consumers of organic produce. However, production of Irish grown organic vegetables and fruit falls short of meeting current market demand with around 70% of retail sales of organic fresh produce imported.

While imports remain an important part of supply for continuity, due to the seasonality of Irish production and consumer desire for a wide variety of out-of-season produce, the National Organic Strategy, in line with the National Strategy for Horticulture 2023-2027, outlines key strategic ambitions, priorities and actions aimed at further growing the supply of Irish organic fresh produce.

Researchers are investigating the potential of outdoor pig systems in Ireland.

# Finding ways to improve pig welfare, indoors and out

Pig production ranks third in agricultural gross output – ahead of tillage and sheep, and behind milk and beef. Pig meat exports last year were almost €1 billion in value. And high welfare production systems offer scope for further growth.

**Laura Boyle**
Teagasc Principal Research Officer

**Keelin O'Driscoll**
Teagasc Research Officer

**Michael McKeown**
Teagasc Pig Development Officer

**Mark Moore**
Tegasc Publications Manager

Ireland has 280 commercial pig farms comprising approximately 200 sow breeding/integrated farms (with an average herd size of 700 sows) and 80 specialised finishing farms. Combined they account for a national output of ca. 3.8 million pigs.

International developments, not least Brexit, competition from other larger producing nations, and increased costs due to the war in Ukraine are placing pressure on the industry.

"One way that the Irish pig meat industry could differentiate itself on the international markets is to develop a "bespoke" high value-added pig meat product," said Teagasc pig specialist Michael McKeown.

"In consumer research people tell us they will pay higher prices for exceptionally high welfare pig products," adds researcher Keelin O'Driscoll from the Teagasc Pig Development Department. "We are investigating how welfare can be enhanced on both conventional pig farms as well as the potential of outdoor systems."

In 2021, DAFM committed to fund the largest pig welfare project to date on the island of Ireland. OneWelPig is a collaboration between Teagasc, University College Dublin, Queens University Belfast and the Agri-Food and Biosciences Institute in Northern Ireland. A key component of the project is assessing the potential of small-scale, typically outdoor systems. As little was known about outdoor pig systems, the first objective was to characterise current husbandry and management practices. Between December 2022 and May 2024, 102 owners of outdoor pigs (five in the North and 97 in the South, located across 25 out of the 32 counties) completed an online survey.

They had on average 10 years' experience (range: 2-32) and mainly kept pigs for personal meat consumption (60.8%), followed by meat for sale (54.9%), breeding pigs for sale (35.3%), land management (32.4%), conservation of traditional Irish and/or rare breeds (31.4%), and finally as a hobby (28.4%).

## Land types

The survey revealed that outdoor pigs are being kept in a variety of land types: pasture (69.2%), scrubland (33.7%) and woodland (28.8%), some were provided with additional straw (18.3%), and there were up to 8.7 animals/ha.

In addition to the survey, researchers in Northern Ireland are investigating agro-forestry systems where outdoor pigs live among oak trees. Animals eat the acorns which fall

from the trees but don't damage the trees.

The survey found that meat from the outdoor units is mostly sold directly at the farm (63.2%), in online shops (44.45%), farmers' markets (40.3%) and in supermarkets (19.6%). Pig breeds on the outdoor units were reported to be mainly Duroc (more than 30%), Oxford Sandy and Black, Tamworth (20 to 30%), Gloucester old spot, Kune-kune, Berkshire (10 to 20%) and a few conventional Large White (less than 10%).

Participants were all operating at small-scale (average six sows/gilts, one boar, 20 grower pigs, 17 piglets at any one time in the year, and managed by two people) and had a communication network separate from the conventional pig industry.

More than half of the participants were members of a society that promotes 'non-intensive' pig farming or promotes a specific breed. This is reflected in the fact that they find it "extremely important" to raise pigs outdoors, as farmers want to offer better animal welfare (93%) and give their pigs access to the Five Freedoms (89%).

Participants said they did not produce pigs outdoors for the market opportunity (33%), or to reduce costs (25%). In fact, in addition to the workload involved, especially fence maintenance, the greatest challenge is the feed cost.

## Conventional systems

"Pigs' predominant sense is smell and in the wild they will spend 80% of their waking time using their snout to locate and root out food," says Laura Boyle. "Giving pigs more opportunities to carry out these behaviours will enhance their welfare."

**Pigs' predominant sense is smell and in the wild they will spend 80% of their waking time using their snout to locate and root out food.**

Two studies have been carried out as part of the OneWelPig project, investigating methods to improve the welfare standards for pigs in conventional systems.

The first study examined the effects of providing loose material to sows and piglets in farrowing crates, and the second investigated both the impact of different stocking densities and comparison of four different loose materials to post weaning pigs.

Most conventional pig production systems in Ireland make use of slatted flooring with slurry storage underneath. Therefore, loose material cannot be provided in large quantities on the floor, as this would result in blockages of the slurry pipes.

In order to get around this problem, researchers provided materials to both sows and piglets in farrowing crates, and weaner/finisher pigs, in metal boxes or racks.

## Meat quality

OneWelPig is also investigating if meat from alternative systems delivers a different meat quality. "We are linking in with the welfare-friendly practices that are underway in OneWelPig and assessing meat quality on the resultant meat and comparing it to meat quality under more conventional production systems," says Teagasc scientist Ruth Hamill.

"We are checking colour, tenderness and water-holding capacity, as well as measuring the level of fat and the fatty acid profile of the meat. We will provide valuable clarity on whether the conditions of outdoor production, or higher animal welfare have positive, negative effects or do not affect meat quality.

"We are following trials in Teagasc Moorepark, the Agri-Food Biosciences institute in Northern Ireland and also measuring meat quality on pigs reared in small scale outdoor production. This information is important for producers, processors and consumers." OneWelPig looks set to deliver benefits for everyone and, most importantly, pigs.

## From 111,000 farms with pigs to today's integrated units

As recently as 1960, there were still 111,000 Irish farmers with pigs, each with an average of eight animals. They produced pigs for finishing (usually on dairy by-products) on their own farms, or for sale to specialised finishers. National output was ca. one million pigs.

Margins were tight and the Department of Agriculture (Department of Agriculture, Food and the Marine [DAFM] today) encouraged the development of pig cooperatives. Small breeders would sell their weaned pigs at 25-30 kg live weight for finishing on a central farm.

Unfortunately, mixing pigs from several farms increased disease risk, and the system ceased. Over time, the production model in Ireland evolved into the "integrated pig farm" which breeds, rears and finishes pigs all produced on the same farm.

## Advice on starting a small pig herd

Here are some points to consider if you are thinking of getting started with a small pig herd…

- Seek advice from a vet, or DAFM or Teagasc Moorepark.
- Request a pig herd number from DAFM.
- You will need very robust fencing, possibly a double layer.
- Expect considerable rooting of the soil.
- Get a properly formulated diet for the pigs.
- Conventional pigs are not the ideal breed for an outdoor herd.

Stephen Morrison and Liam Kelly examining the wide range of trees at Hartwell Farm.

# Forestry delivering multiple benefits on Kildare beef farm

Careful planning and planting is maximising the recreational and biodiversity return from forestry on the Morrison family's farm near Kill.

**Liam Kelly**
Teagasc Forestry
Development Officer

Stephen Morrison, his wife Heidi and four children farm at Hartwell Farm which is outside Kill, near Naas. "We're not far from Dublin and in my grandfather's time cattle would come to the train station in Kill. Once fattened they would be walked into the centre of Dublin."

Stephen studied agriculture in Edinburgh and then worked on farms in Europe, Australia and North America. He took over the family farm in 1994: "At that time we ran a suckler herd, which calved in spring and the autumn. We finished the progeny and we also kept a sheep flock and some tillage."

Stephen has since streamlined the farm. There are now 55 suckler cows, all spring calving, and he has added a small highland cattle herd. He recently converted to organic farming.

"Back in 2018, I decided to stop keeping sheep," says Stephen. "My Teagasc advisor advised me not to make the same mistake of not replacing them with some other enterprise, so I decided to plant part of the farm with trees."

Stephen has always had an interest in the farm's nature, biodiversity and bird life. The farm always had lots of hedges and plenty of trees. Over the years he has enhanced the biodiversity of the farm by fencing off streams and planting up suitable areas including glens.

In 2019, he became an 'Ambassador for Nature' with the Farming for Nature organisation. His family farm has hosted many farm visits including some organised by Teagasc.

## Native trees

"We always had a small amount of forestry, mainly coniferous," says Stephen. "Having researched forestry options, we decided that a native woodland mix would complement the farm and our objectives as a family.

"These include supporting nature, trees, farm diversity, landscaping, and habitats for new and existing birds. We also see the farm providing recreational opportunities for both ourselves and groups that may come to the farm."

I spoke with Steven in late 2018 about planting. He decided that he would start with a seven hectare plot, for which his registered forester made a planting application. The application went through relatively

quickly but a part of the site was held back due to the presence of the breeding wader lapwing species.

The site was prepared for planting in the late autumn of 2019. Due to the location in the foothills of the Wicklow Mountains, a robust deer fence was necessary.

The species, which were planted in groups, included pedunculate oak (47%), birch (23%), rowan (11%), Scots pine, (10%) whitethorn (4%), alder (3%) and additional broadleaves (including hazel and spindle ) (2%). Planting was completed by January 2020.

A meandering path through and around the forest is mowed every month, allowing easy access.

I visited this site recently and was pleasantly surprised at how well the trees were doing.

The carefully planned group planting added to the complexity, diversity and the landscape of the site. The forest path allows visitors to take in the beauty of this newly created woodland.

Stephen says he is delighted with the new forests. "It allows me to enjoy nature and bird numbers and species have increased tremendously as a result of the new woodlands."

On our walk we heard jays singing and a buzzard flew overhead.

In spring 2022, a further three hectares of native woodland was planted, again with species grouped and a path for ease of access included.

Teagasc held a well-attended forest walk on forest establishment on Stephen's farm in 2022, visiting both woodland plots.

### Tree garden

Opposite the farmhouse, a small tree garden was installed on one acre (0.4 ha) in 2020. "This was a family project during COVID-19" adds Stephen. They planted over 150 trees and shrubs across the plot with species including, walnut, Spanish chestnut, willow, hazel, apple, plum, cherry and also some blackberry and raspberry.

Many of the fruit species are progressing well and have already started to produce. "I really enjoy eating fruit grown on our land," says Stephen.

### Social farming

Stephen recently got involved with the social farming movement with participants attending the farm each Friday. The two young forests and tree garden provide a safe haven for guests to work in a farm setting. A recent addition has been a greenhouse and a fruit and vegetable garden, which ties in well with the social farming Ireland aspect of the farm.

## 'We are passionate about nature and its relationship with psychological wellbeing'

### 'Soearth' projects

The Morrison family have set up a 'Soearth' project on the farm. Soearth projects integrate the use of arts and nature for mental health and wellness.

"We are passionate about nature, creativity and its relationship with psychological well-being," says Stephen.

A new building offers a multi-functional space for many different groups and therapies. Groups avail of the space for classes such as yoga and pilates. Soearth facilities are available for adults, children and adolescents, both individually or to community and business groups.

### Forest activity and wellness

Among the many packages offered by Soearth Projects are eco-activity and wellness classes.

These involve indoor sessions, but also walks on the farm and woodlands led by Stephen, who enjoys sharing the experience with all that attend.

As he says,"this is where the woodlands come into their own;

Stephen with hazel, one of his favourite species.

the woodlands are safe, time is not an issue, the beauty of the various tree species is clear to see and the nature provides the beautiful sound, either with the trees blowing in the wind or the beautiful birdsong which can be delightful."

## FORESTRY GRANTS

### FT 1: Native Forests

This forest type supports the creation of new native forests. Areas planted under native forests can be managed for wood production using close to nature forest management.

| FT1: Grant/ ha | Annual premium / ha | Duration of premiums for farmers | Duration of premiums for non-farmers |
|---|---|---|---|
| €6,744 | €1,103 | 20 | 15 |

### FT 8: Agroforestry - Forest Gardening (small-scale food forests)

Forest Gardening will be a pilot scheme under Forest Type 8 – Agroforestry and will soon be launched by the Department Of Agriculture, Food and the Marine, Forest Division. The pilot scheme will start with a 1 ha limit per landowner. Up to 40% of the trees planted could be fruit and nut trees.

| Forest Type | Grant/ha | Annual premium / ha | Duration of premiums |
|---|---|---|---|
| FT8: Agroforestry - Forest Gardening | €6,000 | €829 | 10 |

*For further details contact your local forestry advisor*

# Give rhubarb a go

It's considered a fruit, but rhubarb is actually a perennial vegetable. It thrives here and is easy to grow making it a fantastic choice for gardeners at all levels.

**Paddy Smith,**
Teagasc College,
National Botanic Gardens

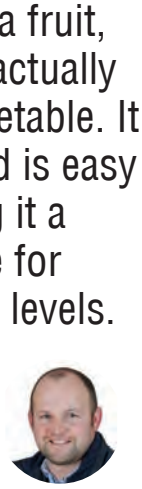

**Figure 1: using a digging spade to remove a set by dividing a rhubarb crown; Figure 2: a new set formed from an existing crown – note the large root.**

Rhubarb is typically propagated by dividing its roots (referred to as a crown) in early spring or autumn. Mature plants can be carefully uprooted and divided into sections referred to as sets (Figure 2). Make sure that you have ample water available for new sets once planted.

Each piece should have at least one growing bud or "eye".

Alternatively, you may be able to see obvious new plants without actually digging up the whole crown (Figure 1). This is especially likely if splitting the plant is overdue.

Be careful to fill in the hole you removed the set from with the surrounding soil. When choosing new sets for digging remember very small buds will give small plants for the first few months, even years, after planting.

Split dormant crowns between large buds or "eyes" so that at least a 5cm cross section of storage root is left with each bud.

Very large buds in the centre of the crown usually develop into a flower stalk the next year so avoid them when choosing new sets.

Be careful not to break off the delicate buds which are easily broken when splitting. Otherwise the roots are quite tough and will tolerate quite a bit of rough handling. When planting, space rhubarb sets 60-120 cm apart.

## Soil Conditions

Rhubarb prefers rich, well-drained soil with a pH between 6.0 and 6.8. Adding plenty of organic matter, such as well-rotted manure or compost, improves soil fertility and drainage. Ensure your site receives full sun to partial shade, as this promotes healthy growth and vibrant stalks.

## Forcing rhubarb

'Forcing' rhubarb, or growing it in dark conditions, didn't start until the early 19th century. Forcing delivers tender, sweeter stalks. To force rhubarb, cover the crown with a pot or cloche covered in opaque polythene in late winter to early spring, preventing light from reaching the plant.

Forcing induces early growth, resulting in pale reddish pink, tender stalks that are perfect for culinary uses (Figure 3)

## Varieties

For Irish gardens, several rhubarb varieties perform exceptionally well. 'Victoria' is a classic late variety choice, known for its reliable growth, heavy yield and large stalks. 'Timperley Early' is another popular variety that produces tender, sweet stalks early in the season. For a unique twist, 'Stockbridge arrow' boasts vibrant red stalks and is excellent for desserts.

## Crop husbandry issues

While generally low-maintenance, rhubarb can face some challenges. Watch out for perennial weeds and crown rot. Regularly inspect for signs of disease, and ensure proper spacing to improve air circulation. Mulching helps retain moisture and suppress weeds.

In conclusion, with the right propagation methods, suitable varieties, and attention to soil conditions and husbandry the plant is long lived. Some plants thrive for over 100 years!

**Figure 3: Home gardening methods of forcing rhubarb resulting in pink reddish sweet petioles.**

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