The Bog Standard

FarmPEAT Newsletter

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The FarmPEAT (Farm Payments for Ecological and Agricultural Transitions) Project is developing a locally-led, innovative, results-based farm scheme for farmers who manage lands that surround some of Ireland's finest remaining raised bogs.

Farming with nature in the midland raised bog landscape.

Farmers' Feedback

We interviewed some of our participating farmers to hear about their experience with FarmPEAT and what they think the future of nature-friendly farming looks like. Read their feedback below!

I was really delighted with a measure I undertook on my farm last year. It all came about after completing the FarmPEAT Training Day and the FarmPEAT Scorecard Training Day. Going on the farm walks in particular and learning the positive indicator species was really inspiring for me, especially when I realised that some of the species we were learning about used to be on our farm.

I wasn't sure if they were still there and I wanted to let a margin grow to see if any would pop up. I put up a temporary fence, fencing off about 1.5 – 2m along some of the field boundaries in our peaty fields. I fenced them off in the summer and they weren't cut or grazed until the cattle came back in late Autumn. I was delighted with the results – many of the boundaries were full of wildflowers, including some of the positive indicator species we had learned about, and wild, native grasses.

Bernie Dempsey, farming near Daingean, Co. Offaly

One of the benefits in the FarmPEAT Project were the supporting actions you could take. I could use them to pay for new fencing, wire, and stakes. For the rewetting, I said I'd sign up at the start and then there was some kickback locally and nationally about rewetting. There was a lot of negative press on it. But on my own side, I'm still interested in rewetting. My field which is directly neighbouring Raheenmore Bog is fairly wet and not really productive at the best of times, so rewetting won't be too much of an issue and I can lower the plastic dams if needed. It's kind of good in a way, because the wetter land grows more grass if there's a drought. In the sandy, lacky ground, the grass would be burnt out of it. Our farm is right beside the bog and growing up, I wouldn't have known all I know now. With FarmPEAT and the different experts coming along and giving talks, it opened my eyes to what people were actually doing to the bog and how Ireland's raised bogs are so important. There was one comment on our FarmPEAT community day that was praising the farmers involved with the project. We have to do what we can to protect the raised bogs for the next few generations.

Ray Brennan, farming near Raheenmore Bog, Co. Offaly

I've got a lot of information from the FarmPEAT Project about the bog. I had heard a small bit about it being good for carbon, but I know a good bit more now. The last time turf was cut off my piece of bog was around 1985. I wouldn't let anyone cut turf off it now though. I'm happy I've held onto it all these years. I always had an interest in nature, and I wanted to learn how to farm the peatland part of the farm without destroying it and to bring the biodiversity back to these plots. I wouldn't have participated in the rewetting action without the funding though. If the land had been good productive land, then it would have been very hard to rewet. It would have been too important to rewet. You can't force it on people. If they want to do it, they'll do it. I'm happy to do what I can to help, and sure other people are doing what they can too. Everyone is doing their bit.

Seamus Fallon, farming near Clonboley Bog, Co. Roscommon

I am delighted that I joined the FarmPEAT Project. It has made me more aware of biodiversity on the farm. I used to see certain plants growing on rough ground as weeds, but now I am aware of why they are growing there and of their importance. I would have seen Sphagnum moss and other bog plants before when we were out cutting turf with a sleán, but I wouldn't have known what they were or that, for instance, Sphganum moss is so important for storing carbon.

I measure the water levels on my farm and on my neighbour's farm too. I enjoy doing it, I feel like I am contributing something to the project and it is interesting to see how the level of the water fluctuates throughout the year. The project contributes to me to do the work, which is important too!

Back in the day, in the late 1800s, a gold torc was found at the bottom of our farm. It was found in the bog during turf cutting. It is now in the National Museum of Ireland. It's called the Ardnaglug Torc – although we are in the townland of Knock here, not Ardnaglug – we claim it as the Knock Torc!

Daniel Curley, farming near Clonboley Bog, Co. Roscommon

Before taking part in the FarmPEAT Project, the bog to me was just for turf or you did nothing with it. Now at least it has value, which it didn't before this. It's nice to see the wildflowers back, even though you never knew they existed. You're looking for them, you'd know they were there, and you'd be kind of keeping an eye out to see if any of them are coming back. It's a learning curve. However, if the payment for rewetting stalls, then you have to go and redo all your drains to try and get them back in order to make it work. It probably would be helpful if small farmers could get more together and if they would stand together, but to gather farmers is not an easy task.

Mary & Gerald Maher, farming near Cloncrow Bog, Co. Westmeath

I have really enjoyed being part of the FarmPEAT Project. The training courses are probably what I found the most beneficial, both for meeting up with other farmers and hearing their views and also for learning more from the project team about the bog. Even though we cut turf on the bog, I never knew how good a carbon sink a bog can be. I never understood how bogs worked or how they had formed until FarmPEAT came along.

FarmPEAT is different to other farm schemes – with FarmPEAT you know what the objectives are and why you are doing something; the team is there to follow up after actions have been completed and you know what the outcomes are. It's a collaborative approach, working with farmers rather than farmers being punished if they don't do x, y or z.

I learned a lot about the positive indicator species. Even though I'm an organic farmer, I didn't know anything about these. In fact, one of my fields has quite a lot of positive indicator species and this is a field I would traditionally have regarded as the worst field on the farm – now I see it differently because I know what's in there.

I'm glad that I have been in the Organic Scheme for the last 10 years. I can see an improvement in the biodiversity on the farm – this year I saw dragonflies on the farm and I hadn't seen them there since I was a child. The FarmPEAT Project is adding to that by supporting farming with nature.

John Lawlor, farming near Umeras Bog, Co. Kildare

Are you a participating farmer and would like to give us feedback? Please email us to share!

FarmPEAT Out & About

January 2023

12th January: We featured in the Ear to the Ground story on peatland restoration.

17th January: We attended a workshop about the NESC Just Transition report.

23rd January: We spoke about FarmPEAT on Midlands 103.

The NESC report produces 20 recommendations for a Just Transition in Agriculture and Land Use across four areas of action:

- Socially and farmer-inclusive processes.
- Enabling people to benefit from opportunities of transition.
- Sharing and mitigating the costs of transition.
- Co-ordinating action.

February 2023

2nd February: We interviewed Michael Fehily about his experience with FarmPEAT to celebrate World Wetlands Day. Scan the QR code to watch the video.

7th February: We hosted a peatland restoration training day. Scan the QR code to watch the video about dam installation.

The plastic dam one week after being installed

March 2023

10th March: We met with farmers working with Teagasc, Green Restoration Ireland, NASCO and FarmPEAT to discuss agricultural peat soils.

Key messages from the day include:

- Scrub on peat lowers the water table and should be removed where appropriate.
- We need to get a baseline on carbon emissions from agricultural peat soils.
- There are lots of details to be teased out in relation to how to rewet peat soils under agricultural use—farmers who have taken rewetting actions with FarmPEAT are vital for helping us to gain this knowledge.

April 2023

17th April: We hosted a feedback session for participating farmers in Tullamore.

25th April: Our participating farmer, Jonathan Cahill, spoke about FarmPEAT at the CIEEM conference.

27th April: We hosted a group of Agriculture & Environmental students from Atlantic Tech University.

John Cahill sharing the work he's doing with FarmPEAT

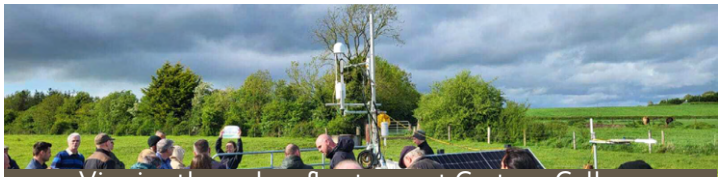
Demonstrating the scoring process to students

May 2023

10th May: We shared information about raising the water table at an IFA meeting on the Nature Restoration Law.

10th May: We spoke at the Grassland Peat Agriculture Workshop at Gurteen College.

The Nature Restoration Law sets legally binding targets for ecosystem restoration in the European Union. The European Parliament adopted the law and is working with the European Commission and the European Council—the representatives of EU countries—to negotiate a final version that will be implemented in Member States.



Viewing the carbon flux tower at Gurteen College

June 2023

7th June: We presented remotely at the "4 per 1000" Regional Meeting.

8th June: We attended the Community Wetlands Forum on Peatland Finance.

28th June: We presented at the PrepSOIL workshop in Tullamore and hosted attendees at a FarmPEAT project farm near Clara.

30th June: We attended the launch of the NESC Just Transition report.

The "4 per 1000" initiative promotes actions to increase soil carbon storage through agriculture and forestry. If the level of carbon stored in the top 30 to 40 centimetres of soil increased by 0.4% (or 4‰) per year, the annual increase of carbon dioxide in the atmosphere would be significantly reduced. For example, by blocking drains and raising the water table on peat soils.

Peatland Finance Ireland are looking at how carbon offsets, carbon taxation and other funding streams can be used to restore peat soils and boost local economies.

Visit to a FarmPEAT project farm with the PrepSOIL team

July 2023

6th July: We hosted the Love Your Wellies Competition Awards Ceremony at Lullymore Heritage & Discovery Park. Scan the QR code to watch the video and read more on Page 7.

25th July: We hosted the RePEAT Project at one of our participating farms near Umeras Bog to measure peat depth and sample soil.

RePEAT is assessing land-use change on peat soils over the last 200 years.

Dr Louis Gilet from RePEAT sparking curiosity in the cattle with the peat probe

Raising the Water Table: FAQs

Managing the water table involves reducing artificial drainage, it does not necessarily mean flooding the land or restoring it to peatland vegetation.

How does it work?

1. Discuss the plan with the project team.
2. The project team will do desk studies and field visits to develop a plan and assess any potential impacts on neighbouring land.
3. Measure width and depth of selected drains to determine how much material is needed for a plastic dam.
4. Decide what level you want the water in the drain to be with assistance from the project team.
5. The project team will arrange any permissions required for the work and organise the dam installation.
6. The dams will be installed by the contractor to the desired height.
7. The height can be adjusted later if needed, to ensure the participating farmer is happy with the level of the water table.

Note: The dams are permeable which means water will move down the drain once the level reaches the desired height. This raises the water table in the adjacent field without flooding its surface.

What do hydrological assessments involve?

1. They start with a desk study identifying the underlying geology and soil type, plus information on aquifers and groundwater. This determines whether the soils are freely or poorly draining and helps identify any risk of polluting the groundwater.
2. Afterwards, the project team will walk the drain and identify any important drainage features, infrastructure and vegetation. They will measure the peat depth, drain dimensions and flow of water. They will also ask about any historical flooding.
3. If needed, they will work with hydrologists to collect and analyse soil samples from the field and drain. The layers of soil underneath will inform how the drain should be blocked.
4. If needed, the hydrologists will install equipment to measure ground level and pair this with laser scanning to determine where drain blocking would be most effective without affecting neighbouring land.
5. All of this information will be used to determine whether the drain is suitable for blocking and if so, how to go about it.

Dam installation in progress

Scan here to learn about the science of rewetting peat soils:

Why is raising the water table important?

The benefits of better management of the water table on agricultural peat soils include:

- Continued production - the water level is set so as to not hinder grass growth if the land is used for grazing.
- Reduced carbon emissions - this helps to mitigate climate change impacts such as drought, extreme heat, and increased frequency of storms which lead to flooding.
- Better water quality and cycle of water through the landscape - this also helps to tackle flooding.
- If desired, a very high water table can be used to diversify the farm's income through paludiculture - this involves growing crops that do well in wet soils, such as bull rushes, Spaghnum moss or blueberries.

Love Your Wellies 2023 Overview

We are celebrating another successful year of the Love Your Wellies Competition. In the lead up to this year's competition, we organised thirteen workshops with primary and secondary schools interested in taking part. The FarmPEAT team ran field trips to sites such as Clara Bog and Ballydangan Bog to explore the history, plants and animals of peatlands. The students measured peat depth, completed a bog scavenger hunt and compiled a card showing the different colours of the bog. These visits inspired students to create entries telling the story of raised bogs through science art.

The judging phase narrowed down all the entries to ten finalists featuring a textile piece, comic, 3D models, a poem, paintings and drawings, stop-motion animation and even a game of snap. The scores from the public voting phase were then added to discover our winners—who can be viewed on the next page!

We were delighted to celebrate all our finalists and announce the winners at our Award Ceremony in Lullymore Heritage & Discovery Park on 6th July. The day began with a launch of the new boardwalk, where a live band was followed by speeches celebrating the Park's 30-Year Anniversary.

After the launch, we strolled back along the boardwalk to the main hall for our Awards Ceremony. Our finalists' entries were visited by the government officials and others in attendance. The prizes were presented by the award-winning nature photographer Tina Claffey, whose work we hope inspired the finalists' to continue exploring their creativity through art. We are very grateful to Lullymore Heritage & Discovery Park for hosting our Awards Ceremony and donating the prize of a free school trip to the Park for the class of the student who won 1st Place Overall!

Field Trip with St. Colman's National School to Clara Bog

Field Trip with Tullamore College to Clara Bog

Winners & Finalists of the Love Your Wellies Competition 2023

Scan here to hear from our finalists:

Ray Stapleton at the Lullymore Heritage & Discovery Park's Anniversary Celebration

Love Your Wellies 2023 Overall Winners

1st Place Overall

'Tiola'

Olivia Paczkowska from St. Colman's National School, Mucklagh, Co. Offaly.

"I thought a lot about the bog cotton when I was working on the cotton material and remembered seeing the buds of the bog cotton at Clara Bog."

2nd Place Overall

'Bog Snap'

Ashley Coyle from Tullamore College, Tullamore, Co. Offaly

"The game 'snap' has always been a special part of my childhood, I have developed a love for the bog and I wanted to incorporate these two things together."

3rd Place Overall

'Bog Busters'

Conor Monaghan, Noah McDermott, Ross Phillips & Conor McNeill from St. Colman's National School, Mucklagh, Co. Offaly

"We wanted to show the dangers to the animals living in boglands from farming, particularly draining the boglands and turf-cutting for horticulture."

Love Your Wellies 2023 Category Winners

3-6th Class (Primary)

'The Bog Man'

Caoimhe Delaney, Rosie Singh and Casey Coyne from Daingean National School, Daingean, Co. Offaly

"We didn't want anyone to forget about the Croghan man who was found close to where we live."

1-3rd Year (Secondary)

'Rainy Days'

Millie Bonfield from St. Michael's College, Kilmihil, Co. Clare

"I started to think about the logo for the competition. It's so simple but conveys the idea very clearly. It shows the similarities between all farmers because it is the most used tool on a peatland."

4-6th Year (Secondary)

'Changing Times'

Abbie Maunsell, Shauna Geraghty, Grace Gratton and Siyana Petrova from Tullamore College, Tullamore, Co. Offaly

"It represents the changing nature of bogland over time...from its creation due to the carbon cycle, the discovery of bog bodies, to the production of peat, to the future of cutaway bogs."

Community Story: Ballydangan Red Grouse Project


Red Grouse. Photo credit: Birdwatch Ireland

The Red Grouse is a sedentary ground bird living on peatlands and upland sites. They mainly eat young Ling heather but also enjoy berries, insects, shoots, buds and leaves—they even swallow grit to aid digestion. Unfortunately, the Red Grouse is on the Irish Red List of Birds of Conservation Concern because their range has declined by 70% in Ireland over the past 40 years due to habitat changes such as peat extraction, drainage, burning, forestry plantations and infrastructural developments.

Pat Feehily, the co-ordinator of the Ballydangan Red Grouse Project established in 2009, reflects on his first-hand experience of their decline: "*I actually grew up beside the site. My brother's land touches on the site. And we would have been turf cutting through the years and all of them birds, the Grouse, Curlew and Lapwing, were in abundance there. And then over the last 30 years, things have started to go the opposite way.*" Ballydangan Bog is owned by Bord na Móna and was drained in the 1980s for peat extraction but has since undergone a drain-blocking operation as part of rewetting actions.


Pat Feehily cutting the heather for the Red Grouse.

Working together with the local Gun Club, Pat Feehily and Pat Dunning decided to act. Pat Feehily runs a local Community Employment Scheme and saw a unique opporunity to submit a proposal to Fás's call for unique projects: "*In the Gun Club then, we were talking about how the Grouse had declined in Ballydangan and we sent that in as the unique project. We were allowed to take on four people to help us out with a management plan, and we've been here since. I'd know all of them bogs anyways from my working career and some lads would have come with serious knowledge and skills, coming from a hunting background. We have a big relationship built up over the years with the lads that worked on the project.*"

Together with the local Moore community and national partners, the project team work to improve habitat quality, control predators and human disturbance, monitor populations, and raise awareness of the Red Grouse on raised bogs. For example, Pat described how they cut the heather to create different heights preferred by the Red Grouse: "*You wouldn't believe the growth of heather with this machine, last September we cut back the heather in one area and it has come back in a lovely bloom. With this machine, you can keep it up, you don't have to go down to the roots to cut it. You can keep well up and you've a chance for the smaller plants underneath the heather to get a bit of light and they'll flourish as well. Like the sundews.*" The different heights of heather provide food and shelter to the Grouse.

The project team provides grit to aid the Red Grouse's digestion

A digger doing rewetting work on Ballydangan Bog

Young heather, a year after being cut by the project team

Currently, their surveys suggest low densities of Red Grouse although the actions have successfully avoided a local extinction. Pat recognises that the challenge with a small population is poor genetic diversity: "*We feel that we're in a bottleneck there and we only have a certain amount of birds, they're cross-breeding and we're not having any success in exploding the population.*" Fortunately, they have been working on a solution: "*The plan is to translocate the same species of Grouse to Ballydangan to improve the gene pool in it. There are particular times of year when it's a bit easier to catch them, say around mating time. To do this work, we have to apply for licences from the National Parks.*" Hopefully, they will manage to get a licence for the next mating season.

Fortunately, the project team's actions have benefited other birds such as breeding Curlew, Common Snipe, Mallard, Lapwing, wintering Golden Plover, and even a male Hen Harrier: "*We started off with the Red Grouse but now we're protecting all the ground-nesting birds. And we have seen major transformation in the number of birds. We started off with two breeding Curlew pairs, now we're up to seven breeding pairs. That's from on-going nest protection and work on the site. So if it works for the Curlew, hopefully it will work for the Grouse. And Snipe and Lapwing are doing well on the site. It's lovely to see the Lapwing back, you know the way they'd be swooping and diving when they have young chicks on the ground.*"

Lapwing and chick on Ballydangan Bog

Although when they started out, Pat says, "*We were there just to mind Grouse and to get the Grouse numbers back*", as time went on, the project began to also increase awareness of this bird and raised bogs. Pat views the group visits as absolutely essential: "*The more people that know what you're doing and what it's all about, and getting more people educated towards what we're at, is a huge help in any project.*" During the Love Your Wellies competition, the FarmPEAT project organised school visits to Ballydangan Bog for the students to learn about the Red Grouse. Ultimately, Pat wants what they have learned to be spread far and wide: "*It's a question of maybe getting a bit of funding and incorporating more sites into the bigger picture, because there are birds on them other sites too. It is a pity that things are going so well on this site, but a few miles down the road there are other potential sites and there's no protection on them.*"

School trip to Ballydangan Bog with FarmPEAT

There is much hope and ambition in the Ballydangan Red Grouse Project. We have the knowledge of how to reverse the decline of the Red Grouse and other species on the Irish Red List of Birds of Conservation Concern. Now, we need to apply the learnings to more sites to scale up the impact.

Thank you to Pat Feehily and the rest of the Ballydangan Red Grouse Project for sharing your work and photographs! Learn more on www.ballydanganbog.com.

Colouring Sheet

Caroline & Bernie from the FarmPEAT team were out scoring a farm where the drains have been blocked. The resulting higher water table made the grassland wetter.

They saw positive indicator plants such as this Marsh Thistle below, pollinated by the Red-Tailed Bumblebee.

Can you colour in these species below? Learn more about the bumblebees of Ireland on www.pollinators.ie.

Patrick Kavanagh (1904–1967) was a farmer, cobbler, and poet from Inniskeen, County Monaghan. His better-known work is familiar to us from our school days and most famously, Luke Kelly's haunting rendition of 'Ragland Road', a personal reflection on love found and then lost.

Despite his simple upbringing on a small farm and the hardships that came with it, Kavanagh saw beauty and wonderment in his everyday surroundings. He marvelled at the creations of nature, often in the most ordinary of places and penned poetry as an appreciation, as if these revelations were made known only to him.

The One

By Patrick Kavanagh

Green, blue, yellow and red -
God is down in the swamps and marshes,
Sensational as April and almost incredible
the flowering of our catharsis.
A humble scene in a backward place
Where no one important ever looked;
The raving flowers looked up in the face
Of the One and the Endless, the Mind that has baulked
The profoundest of mortals. A primrose, a violet,
A violent wild iris – but mostly anonymous performers,
Yet an important occasion as the Muse at her toilet
Prepared to inform the local farmers
That beautiful, beautiful, beautiful God
Was breathing his love by a cut-away bog.

Did you know? with *Farmer Pete*

We have over 100 different types of bee in Ireland - and 1/3rd of our wild bee species are threatened with extinction.

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An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture, Food and the Marine

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The European Agricultural Fund for Rural Development: Europe investing in rural areas