

# BIODIVERSITY AND THE IRISH LANDSCAPE



# What is Biodiversity?

The word Biodiversity comes from two words Bio + Diversity.



Biodiversity encompasses all the different kinds of life you will find in one area—the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world.

Each of these species and organisms work together in ecosystems, like an intricate web, to maintain balance and support life.

Biodiversity supports everything in nature that we need to survive: food, clean water, medicine, and shelter.

Irish landscape biodiversity has been shaped by millennia of agricultural activity, with nature providing the raw material. Irish farmland is characterised by having a good diversity of habitats such as hedgerows, field margins, ponds and streams, native woodland, bogs and species-rich meadows and pastures. Irish biodiversity therefore depends on farmland habitats.

Everywhere on a farm is a habitat and every farm contributes to biodiversity. Flora and fauna are adapted to live in different habitats

The most common farmland habitats are hedgerows with other important farmland habitats including, native woodland, bogs and species rich grassland.

The network of habitats throughout the countryside provides connectivity for wildlife. Sensitively managed farmland can greatly benefit wildlife and help halt the decline of Ireland's biodiversity.

## Types of Biodiversity in our Ecosystem:



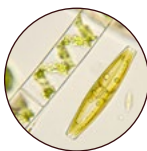
Animals



Plants



Fungi



Microorganisms

## The importance of hedgerows on our farms:

Hedgerows are important homes where flora and fauna can thrive. Flowering hedgerows can be a lifeline for nature, providing vital food for pollinators in spring, as well as berries in autumn for birds and mammals.

Vibrant hedgerows on farms provide wildlife corridors for many of the insects, birds and mammals that are such a help to the farming operations. They also provide much needed shelter for grazing animals. Pockets of trees on farms play their part in removing carbon dioxide from the atmosphere as they grow and so all help to combat climate change.

When it comes to our herds, our cows spend most of the year outside grazing on acres of rich and plentiful grass. Ireland is extraordinarily fortunate in its natural capacity to grow quality grass. Our location on the edge of the Atlantic Ocean means we have a moderate climate, with plentiful rainfall that creates lush green grasslands where our herds are free to graze for most of the year.

At Tirlán we are conscious of how fortunate we are to have this resource literally under our feet, and we do all in our power to protect and nurture it.

For our farmers, agriculture is not only a way of life, but an enduring family tradition. We work with our farmers to nurture the land and encourage regenerative farming practices. Our technical advisory team place a strong premium on soil health to promote healthy environments where plants can thrive.

At Tirlán, we believe that by working together we can really make a difference. We want to help protect nature and allow biodiversity to thrive, leaving our landscape in even better shape for the next generation. Our location on the edge of the Atlantic Ocean means we have a moderate climate, with abundant rainfall that helps our trees, plants and soils to flourish. Our trees and hedgerows create natural ecosystems where our flora and fauna can exist in harmony. They mark the seasons of the year, recycle nutrients, deliver important nesting sites and create a buzzing bee and insect life.



**Tirlán supplier Bryan Daniels, who won the coveted Grassland Farmer of the Year 2019 award, places a big emphasis on nurturing the soils and habitats on his farmland.**

# WHAT DOES THIS MEAN FOR OUR ENVIRONMENT?



## VITAL POLLINATORS

Hedgerows and trees provide pollen and nectar for our all-important pollinators. Hedgerows are vitally important as a food source, providing a place to breed and to over-winter.



## WATER PURITY

The root systems of trees and hedgerows regulate water movement and help to prevent flooding. They also reduce nutrient runoff and sediment from entering our rivers and streams which will help protect our water quality.



## WILDLIFE

Hedgerows and trees provide a habitat for many small mammals such as hedgehogs and bats, supplying them with food, shelter and corridors of movement. Hedgerows are home to 55 out of 110 birds recorded in Ireland's wildlife.



## PREVENTING SOIL EROSION

Tree belts and hedges act as a natural barrier, reducing both wind and water erosion.



# BY COMBINING THE STRENGTHS OF OUR PEOPLE, OUR FARMERS AND OUR COMMUNITIES, WE BELIEVE THAT TOGETHER WE CAN MAKE A DIFFERENCE

## Did you know?

- Trees and hedgerows are important for farmers and wildlife. They provide protection and shelter for livestock and crops. Birds also nest in hedgerows during the breeding season and use them as protection from predators.
- As trees grow they absorb and store carbon dioxide, they keep converting carbon dioxide in order to grow tall and strong and in return they release pure oxygen back into the atmosphere.
- Annual removal of CO<sub>2</sub> from the atmosphere by Ireland's forests exceeds 6 million tonnes per annum.<sup>1</sup> On average, 4.3 tonnes approx. of CO<sub>2</sub>/ha/year is sequestered by Irish Forests.<sup>2</sup>
- According to the Environmental Protection Agency (EPA), hedgerows and non-forest woodland could potentially sequester between 0.66 and 3.3tn of CO<sub>2</sub>/ha/year.<sup>3</sup>
- Approximately half of the 110 bird species recorded by Birdwatch Ireland use hedgerows for nesting during the breeding season as well as for roosting and protection from predators.<sup>4</sup>
- Over 1500 insects can be recorded at times both living and feeding in hedgerows.<sup>5</sup>
- The common hawthorn can support 300 different insect species alone.<sup>6</sup>
- Grasslands comprise 80% of Ireland's agricultural land, with an annual growth rate that exceeds the European average by more than a third.

# OUR UNIQUE DAIRY SYSTEM



## Grass fed cows

Outdoor grazing on nutritious grass for most of the year



## Cleanest air in Europe

Urban outdoor air pollution index



## Island location

On the edge of the Atlantic Ocean with plentiful rain



## Product quality

Multiple checkpoints from farm to factory



## Food authenticity

Produced honestly by safe family farms



## Clean label

Non-GMO, hormone-free, Kosher & Halal



## Cow & milk traceability

From grassland to customer



## Trusted Partner

Supporting leading global brands

# OUR R&D FUNCTION



## The Innovation Hub

Our Innovation Hub houses world class facilities enabling us to bring our concepts to life.



## Leading the way in process and technology

Functionalising and developing ingredients whilst always maintaining nutritional integrity.



## Our external ecosystem

Our extensive network of external partners ensures we are agile.



## Developed by our experts

Our team of experts passionately researching the worlds of dairy and plant.



## Providing superior nutrition

At Tirlán the foundations of nutrition are built on dairy and plant. Our ethos: "Good for You, Good for the Planet".

## Reference

1. Tree Council Of Ireland  
<https://www.treecouncil.ie/eannanilamhnacarbonfootprint>
2. Teagasc, GHG Emissions: Positive Role Of Forestry  
<https://www.teagasc.ie/media/website/publications/2020/GHG-Emissions---Positive-Role-of-Forestry.pdf>
3. EPA, Climate Change Research Programme.  
<https://www.epa.ie/pubs/reports/research/climate/ccrp-32-for-webFINAL.pdf>
4. Irish Examiner, Hedgerows vital for wildlife.  
<https://www.google.ie/amp/s/www.irishexaminer.com/property/homeandoutdoors/arid-30961526.html%3ftype=amp>
5. Threats to our hedgerows.  
<https://ptes.org/hedgerow/threats-to-hedgerows/>
6. Woodland Trust.  
<https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/a-z-of-british-trees/hawthorn/>



## Get in Touch

To find out more about how Tirlán can support you in developing your solutions, please contact us directly.

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