

BIODIVERSITY on your Farm

Species Profile # 38

The National Biodiversity Data Centre has set a challenge for farmers to record some of the amazing biodiversity found on your farm during the year. We have 40 species for you to record.

Are you up for the challenge?

Species: Yellow Brain fungus or Golden Jelly

Scientific Name: *Tremella mesenterica*

Group

Fungi are one of the largest and most significant organism groups. Approximately 5,500 known fungi, estimated at 9,000.

Yellow Brain fungi belong to the *Tremellomycetes* family, a teleomorph, meaning it parasites on other fungi.

How common on farms

Biodiversity surveys were carried out across 40 farms within the National Biodiversity Data Centre's 'Protecting Farmland Pollinators' EIP project (<https://biodiversityireland.ie/projects/protecting-farmland-pollinators/>). The 40 farms were chosen to reflect farms of differing types and intensity levels. Yellow Brain fungi was present on some of the 40 farms.



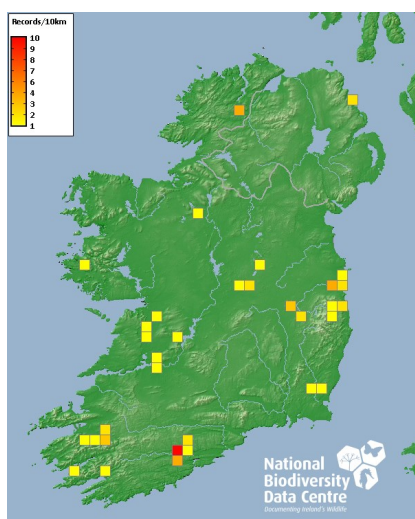
Yellow Brain. Note: several lobes and folds from a base, that form irregular yellow floppy clusters.

Identification Tips

- A distinctive bright yellow, brain-shaped jelly fungus.
- Up to 8cm across.
- Several lobes and folds from a base, that form irregular floppy clusters.
- Typically found growing on gorse, hazel and other deadwood.
- Parasitic, it attacks *corticoid*, a species of crust fungus (*Peniophora*).

Distribution

Widespread and common, probably under recorded.



Source: The Yellow Brain records as viewed on Biodiversity Maps, 2023.

Biodiversity Tip No. 38

Value below ground root networks.

They are responsible for converting dead matter into nutrients for the soil.



Conservation Status

Red Lists are an internationally recognised methodology for assessing conservation status.

There is no complete Irish checklist for fungi or a national conservation assessment.

Management Tips

On the farm:

- Don't be too tidy! Leave standing and fallen deadwood on the farm, where feasible. As they naturally decay, they provide essential humus, minerals and nutrients for soil health and they're a valuable wildlife habitat.
- In hedgerows, shrub and woodland edges, leave some deadwood, fallen branches or standing deadwood.
- Encourage or plant native trees and shrubs, such as Hazel, Birch and leave some gorse.
- Create a small woodland on the farm, include local provenance native species.
- Restore or create a traditional orchard on the farm.



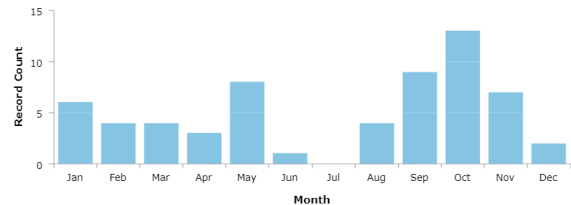
Yellow Brain fungus on an old apple tree.

Photo: Ruth Wilson

When?

Can be seen throughout the year, but is most visible in late autumn and early winter.

Records per month across all datasets



National Biodiversity Data Centre, Ireland, Yellow Brain, *Tremella mesenterica* image, accessed November 2023.

[Yellow Brain \(*Tremella mesenterica*\) - Detail - Biodiversity Maps \(\[biodiversityireland.ie\]\(https://biodiversityireland.ie\)\)](#)

Where on the farm?

Found on deadwood in hedgerows, shrub, orchards and woodland edges.

Value

- Ongoing research has found, yellow brain fungus produces certain biological compounds that are of interest to medicine. Compounds produced by the fungus have shown anti-inflammatory and anti-allergic properties.
- Not a wood rotter itself, but a parasite on the mycelium of a saprotrophic crust fungi (*Peniophora*) that break down dead wood.



Yellow Brain.

Photo:
Ruth Wilson

Further Info

Yellow Brain fungus is not a wood-rotter itself, but a parasite on the mycelium of a saprotrophic crust fungi (*Peniophora*) that break down dead wood.

These beneficial saprotrophic fungi, decompose dead organic material and break it down into humus, minerals and nutrient resources that can be utilised by plants.

If we didn't have saprotrophic fungi we would have a mountain of un-rotted dead leaves and wood. As the leaves and wood decompose, animal biodiversity such as springtails, beetles and worms, can gain access to the cavities and food supply that develop and they continue the breakdown process.

The Yellow Brain fungus *Tremella mesenterica* name 'mesenterica' comes from Ancient Greek for middle intestine, referring to the many lobes and folds of this jelly fungus.

Similar species

They may be confused with *Tremella aurantia*, it is virtually identical in colour and form, but parasitic on Hairy Curtain Crust.

Need some help with identification?

Just drop us a line, we'll be happy to help:
pollinators@biodiversityireland.ie

Useful Links

Fungi of Britain and Ireland:

[Fungi of Great Britain and Ireland \(myspecies.info\)](http://myspecies.info)

National Biodiversity Data Centre—Fungi

[Fungi – National Biodiversity Data Centre \(biodiversityireland.ie\)](http://fungi-nationalbiodiversitydatacentre.biodiversityireland.ie)

Woodlands UK article on Yellow Brain fungus.

[January's Fungi Focus: Witches' Butter, Warlock's Butter and Yellow Brain \(woodlands.co.uk\)](http://woodlands.co.uk)

Record here

Your records will help us build a picture of farmland biodiversity in Ireland. If you're happy with your identification, you can submit your record.

- On the National Biodiversity Data Centre website:

<https://records.biodiversityireland.ie/record/biodiversity-on-your-farm#7/53.455/-8.016>

Affected by a change in climate?

There is no specific details on how jelly fungi may be affected by climate change.

Changes in weather patterns may impact the decay of wood and the fungi life cycle, that may include increased opportunities for this fungi.

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



An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreacht
Department of Housing,
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An Chomhairle Oidhreachta
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