



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



TREE COUNCIL OF IRELAND

Comhairle Crann na hÉireann

'Fostering a tree culture in Ireland through action & awareness'

A Guide for Landowners to Managing Roadside Trees



Principal Text by Eileen Woodbyrne, Roy Goodwin and Cormac Downey.
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FOREWORD



I am pleased to welcome this **Guide for Landowners to Managing Roadside Trees** document which is aimed at landowners in ownership of roadside trees. This new document aims to inform and offer guidance to these landowners on how to best manage these trees.

Roadside trees line many of the highways and byways of Ireland and as well as adding beauty to our landscape they serve many other important functions. They are habitats for small animals, birds and insects, and they can help regulate surface water as well as provide shelter for road users.

Keeping our roadside trees healthy is important and the purpose of this document is to increase awareness and consideration of the health, safety and wellbeing of road users and pedestrians. By informing landowners of their responsibilities, the actions they can take and how they can access advice from engaging with professionals, I hope the information provided will contribute to the mitigation of possible risks associated with roadside trees.

Set out in six clear steps, the document guides the landowner through the responsibilities associated with ownership of roadside trees, it advises on how to check trees, how to plan and carry out tree maintenance work and emphasises the importance of record keeping.

Finally, I wish to express my gratitude to all who have contributed to the development of this document.

Minister of State Senator Pippa Hackett



EXECUTIVE SUMMARY

A Guide for Landowners to Managing Roadside Trees takes the landowner through the advantages and responsibilities associated with ownership of roadside trees

It provides basic information on the many benefits of trees as well as guidance on how to assess risk associated with them. It describes common defects in trees including dieback, unstable leans, splits and cracks, decay, and cavities supported by photographs of these common defects.

Advice is provided on how to plan and carry out tree maintenance work and the importance of record keeping is emphasised.

Six key steps are identified for the landowner in the management of roadside trees.

SIX STEP SUMMARY MANAGING YOUR ROADSIDE TREES

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- STEP 1:**
Recognise The Benefits Of Trees
 - STEP 2:**
Understand Your Responsibilities
 - STEP 3:**
Check Your Trees
 - STEP 4:**
Prioritise The Work
 - STEP 5:**
Carry Out The Work
 - STEP 6:**
Keep Records

This document aims to provide guidance to the owners of roadside trees on the simple steps required to achieve informed and responsible management of roadside trees.

STEP 1. RECOGNISE THE BENEFITS OF TREES

THE BENEFITS OF TREES

Trees provide many benefits. Their presence makes our countryside, towns and villages more attractive, pleasant places in which to live. They bring environmental benefits too, capturing pollution, releasing oxygen, cooling the air and providing shade and shelter. Trees store carbon and they can reduce the risk of flooding.

Our stress levels are lower when we are around trees, and we are more likely to walk or cycle in tree-lined environments, because trees can make us healthier. Trees support wildlife, providing food, nest sites and cover from predators. Ireland's reputation as a green, unspoilt land is enhanced by our tree cover, contributing to our tourism industry.

Ireland has an extensive road network. According to the Department of Transport there are almost 94,000 km of regional and local roads in Ireland. Roadside trees are a characteristic component of our road network and landscape. Whether standing alone on the roadside or in groups, growing in hedgerows or forming a roadside canopy or "tree tunnel", roadside trees enhance the road users' experience. Road users enjoy the many environmental and aesthetic benefits roadside trees provide whether it is shelter from sun, wind or rain or simple aesthetic enjoyment. It is thanks to the owners of the land adjoining our roads who have planted and looked after the roadside tree resource that the benefits these trees offer can be enjoyed by all of us.

Trees are living organisms and like all other living organisms they have a finite lifespan. Over time, trees may become physically damaged or be subject to a pest or disease attack. It is very important for landowners to actively look after their roadside trees and to be able to recognise and take appropriate action where significant tree damage and possible risk to people or property are identified.



Trees soften the otherwise harsh urban environment.



Rural roadside trees

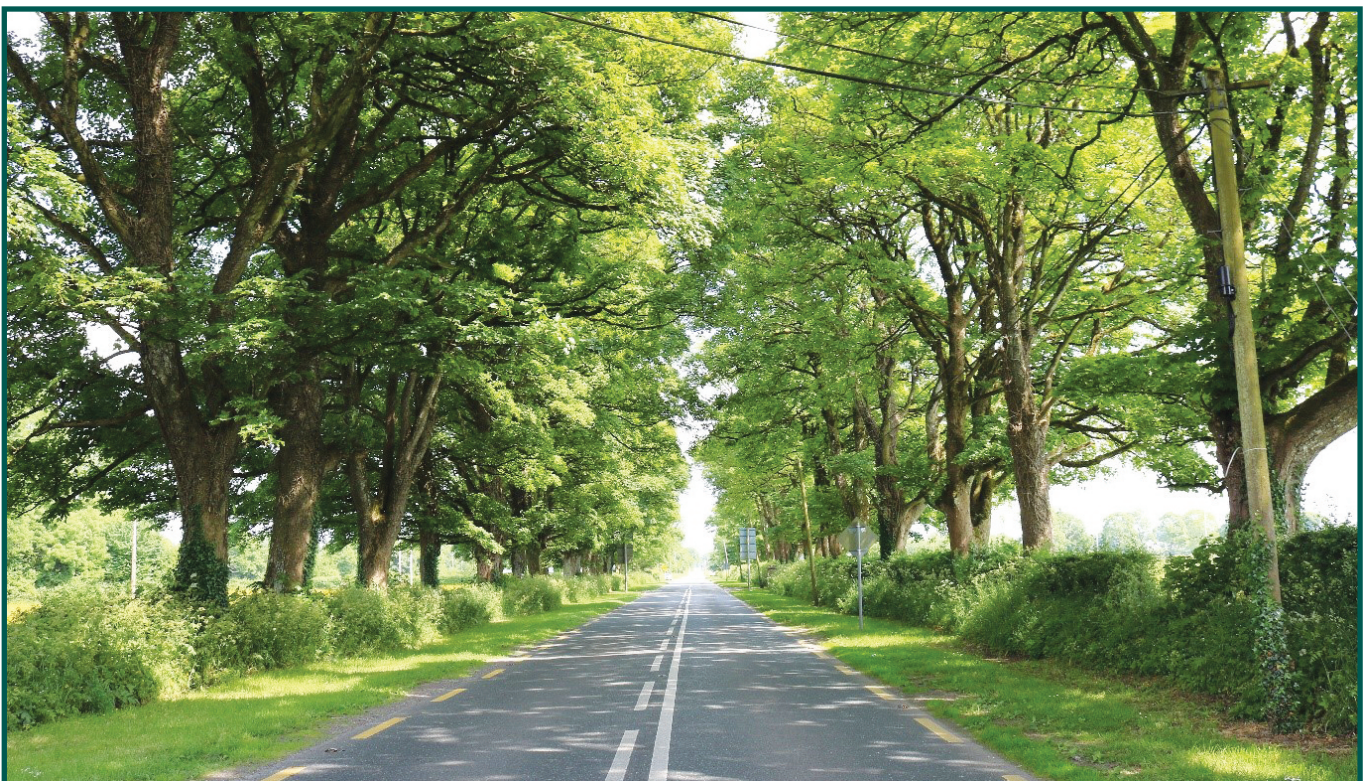
STEP 2. UNDERSTAND YOUR RESPONSIBILITIES / KNOW YOUR TREES

Under common law, we all owe a duty of care to those who might reasonably be expected to be affected by our actions or omissions. The trees on your land are your property and as a landowner you are responsible for their care. Ensure that you are aware of the full legal extent of your land ownership. Land ownership normally extends to the centre of the road; therefore, it is the landowner – not the local authority – who is responsible for the trees and hedges beside the road. Consult Deeds / Land Registry maps and take appropriate advice.

The Roads Act 1993 requires owners or occupiers of land to take all reasonable steps to ensure that trees or other vegetation on their land are not a hazard to persons using a public road. Local authorities may issue notices to landowners requesting them to maintain or cut back trees or hedges.

If a tree fails (breaks or collapses) and causes injury or damage, the landowner will be held liable if negligent. Negligence will usually depend upon whether the tree was in an obviously dangerous condition, and whether the landowner had a programme of checking and managing roadside trees. That is, if the accident was reasonably foreseeable and could have been prevented.

An 'Act of God' is not a viable defence if the tree involved was obviously defective and the landowner had not checked their trees.



You may own the land to the middle of the road!

STEP 3. CHECK YOUR TREES



This section focuses on the identification of key signs indicating potential risk of tree failure.

In managing the risk from your roadside trees, you should take a balanced and proportionate approach. Trees provide many benefits and statistically the risk is low, with serious injury from tree failure being a rare event. We have millions of roadside trees and most do not fail, even in storms. However, you as a landowner have a responsibility to understand and manage the risk from your trees, and a legal duty of care to do so.

The following sections give preliminary guidance on the process of assessing the risk associated with your roadside trees (and then on how to manage that risk in later sections). In some circumstances, you can carry out the risk assessment yourself. However, if you have a significant number of large, important trees, you would normally be advised to employ professional advice, in addition to carrying out your own regular checks. Similarly, when undertaking tree works, a professional contractor should normally be employed.



Trees are an integral part of the Irish rural landscape.

ENGAGING A PROFESSIONAL

CONSULTANTS:

These are usually arborists or foresters. You should ensure that they have recognised qualifications and expertise in advising on the management of roadside trees and that they carry appropriate professional indemnity insurance.

CONTRACTORS:

Ensure that they have the recognised qualifications and expertise to carry out roadside tree work to recognised best practice standards and that they also carry appropriate public liability and employer's liability insurance.

Ensure that you ask for and retain copies of insurance details of the consultant or contractor engaged.



SIGNS OF RISK OF TREE FAILURE

Certain defects or signs in trees commonly indicate a high risk of tree failure.

Examples include:

- a) A dead tree or branch
- b) Signs of root plate movement or an unstable lean
- c) Extensive, active and progressive decay of the stem base
- d) Deep cracks or splits in the wood of the main stem or branches

Other factors such as a sudden increase in wind exposure or loss of root anchorage due to excavation or waterlogging can also increase the risk of failure, but this document focuses on signs in the tree itself. Combined with severe weather (high winds in particular) these risk factors can indicate a tree whose failure is reasonably foreseeable.

If your property includes a significant number of mature roadside trees you are advised to have them assessed by an arborist or forester who will then advise you on when they should be checked again.

WHEN CHECKING YOUR ROADSIDE TREES YOURSELF:

- Set aside a time each year to do the check, and keep a record of when you did it
- If your trees have heavy ivy cover, carefully remove a section of ivy from the lower trunk to allow for an inspection (see further information on page 15)
- If your site is large, have a map/plan on which to locate trees of concern
- Walk your roadside boundaries to undertake a visual check of all mature and semi-mature trees within falling distance of the road
- When checking your trees, plan your route and ensure your own safety when on the road or on uneven ground beside it
- Mark any trees of concern – these can then be checked by a professional and a management decision can be made
- Include regular brief checks at other times of year as part of your general activities, including after any severe weather events

Don't focus on deciding if a tree is 'safe'; concentrate instead on identifying whether it is obviously 'dangerous'.

DEFECTS IN TREES

This section describes common tree defects, how to interpret them and suggests the action that may be required. Before undertaking tree work you should refer to the section on health and safety in tree work on page 14 and the advice on engaging a professional on page 5. A combination of defects may be present which can increase the risk of failure.

DIEBACK

Death of branch tips, or entire branches. Identifiable in summer by being leafless; in winter, in deciduous trees you will see a distinct lack of twig density and discolouration or loss of bark.



Dead branches over the road can be hazardous.

Deadwood on many species becomes brittle; large dead branches over the road are a potential danger. Dieback of individual branches may not threaten the survival of the tree, especially if the crown is otherwise healthy.

ACTION

Have large dead branches overhanging the road removed.



Dead trees should be felled.

If the remaining crown is in decline the dieback may be terminal. If the tree is entirely dead, it will be an obvious danger.

ACTION

Have dead trees felled.



Dieback may indicate a root problem.

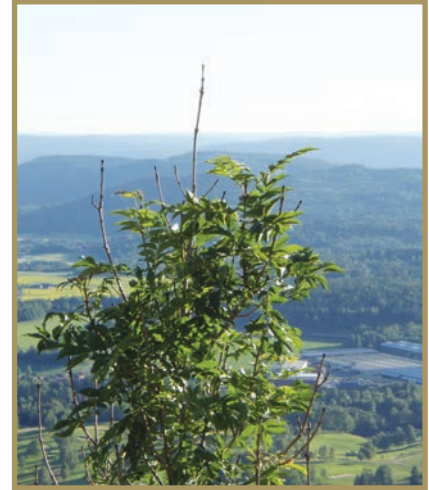
Dieback of numerous branches extending from the top of the crown can be caused by death or decay of the root system.

ACTION

Have the tree checked by a professional before a decision is made about pruning or felling.

ASH DIEBACK (*Hymenoscyphus fraxineus*)

Ash Dieback Disease (caused by the fungal pathogen *Hymenoscyphus fraxineus*) causes wilting of foliage, stem lesions, crown dieback and death of ash trees. The pathogen has now been confirmed to be present in all 26 counties in the Republic of Ireland.



The photographs above provide a visual aid to recognising the common symptoms of Ash Dieback.

From left to right; the distinctive diamond shaped stem lesion associated with the pathogen, shoot dieback (notice the yellow / orange discoloration), shoot tip dieback (notice the top shoots without foliage).



- Ash trees are a very common component of Ireland's roadsides.
- Roadside ash is evidently becoming increasingly impacted by ash dieback disease.
- Infection with ash dieback disease leaves the tree susceptible to secondary infection from other pathogens.
- Roadside ash trees infected with ash dieback disease may pose an increasing roadside risk.

A SMALL PERCENTAGE OF TREES WILL HAVE TOLERANCE TO ASH DIEBACK DISEASE AND MAY SURVIVE INFECTION. IT IS IMPORTANT THAT TREES DEMONSTRATING TOLERANCE BE CONSERVED.

LEANING TREES



Trees may, or may not, have become dangerous due to their type of lean.



DANGEROUS LEAN

The tree may be partially uprooting, sometimes remaining lodged in another tree. The lean will be recent and unnatural, typically with mounding on one side where the root plate has lifted; this is an obvious danger.

ACTION

Have the tree felled.

This leaning tree is potentially unstable and should be felled.



STABLE LEAN

Many trees have a natural lean due to planting position. This 'natural' lean is often stable.

ACTION

Check that the lean is stable and that the tree is not starting to uproot which may be indicated by a raised area of ground over a root plate, soil cracks, gaps under exposed tension roots (roots opposite the lean) or entire root plate movement.

If there is no sign of movement in the root plate and the lean is stable, there may not be a need for action.



SPLITS AND CRACKS

Trees may, or may not, have become dangerous due to splits or cracks.



DEEPER STEM SPLITS OR CRACKS

Where a stem or branch has an open crack extending into wood it will often be weakened and is at an increased risk of failure. A deep fresh crack or split in the main stem can indicate a serious and immediate danger.

ACTION

Arrange to have tree assessed immediately. Split branches may need to be pruned or removed. Where the stem (trunk) is splitting, the tree may need to be felled immediately.

A deep crack extending into wood can be an immediate danger.



SURFACE BARK CRACKS

Occasionally, a few species present cracks which are merely surface bark cracks.

ACTION

No action is required once the cracks are confined to bark and not extending into the wood.

Superficial cracks in bark are generally not significant.

DECAY, CAVITIES AND FUNGI (MUSHROOMS OR BRACKETS)

Decay and/or cavities in the main stem (trunk) or branches.

Where decay is extensive and progressing, and over 1/3 of the outer stem circumference is dead or missing, the tree may have become unstable and hazardous.

Where stem decay is advanced and extensive, and decay is still active and progressing, the tree may be unstable and at an increasing risk of fracture failure. One common sign of this can be a progressive killing and decaying of stem tissues with no clear division between live bark and wood and the areas of decayed stem wood.

ACTION

Have the tree assessed by a professional and pruned or felled as advised.



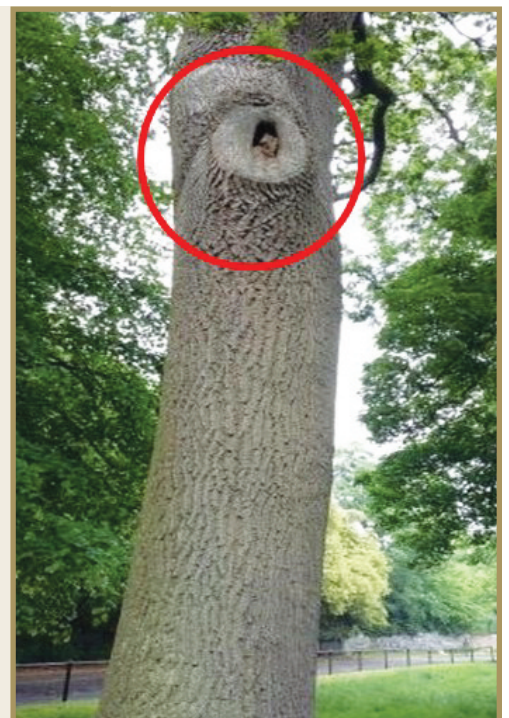
Decay is usually due to wounding. Trees may successfully seal off such damaged areas and produce adaptive wood growth to maintain adequate safety.

A potentially positive symptom is where there is sufficient live and strong outermost wood present together with a clear and sudden transition to the old decayed or missing wood within the cavity.

Wood decay and cavities may or may not significantly affect the tree's mechanical stability and its risk of failure (collapse). An old tree with a large stem diameter and in good health may be substantially hollow but remain stable. But any obvious decay in a roadside tree will need to be assessed.

ACTION

Have the condition of the tree assessed by a professional before making a decision.



Fungal brackets or mushrooms growing directly from the base of the stem or root collar.

Mushrooms or brackets attached to the stem.

Trees and fungi have evolved with each other and fungi are a natural part of the tree's life cycle.

There are many different species of fungi and their presence on or near a tree may not mean the tree is dangerous. Most fungi decay only deadwood, but a few can kill living wood and degrade it. Some fungi produce hard perennial brackets, others are soft and fleshy and only visible for a short period. Some are small and not very noticeable.

ACTION

If fungal fruiting bodies (mushrooms or brackets) are present on the tree, seek professional advice to have the fungus identified and the condition of the tree assessed.



The above are examples of the type of fungal brackets that can be found on trees.

Some are more harmful and potentially dangerous than others.

Seek specialist advice from an arborist or forester if in doubt.

STEP 4. PRIORITISE THE WORK



If the risk from defects found while checking your trees is considered unacceptable then remedial work will need to take place. This may involve pruning or removal of the tree. To guide your next step, it is helpful to categorise the level of risk. A simple way of doing this is by having two categories:

Trees posing an immediate risk to public safety, such as trees in imminent danger of collapse. These should be attended to urgently.

Trees posing a less immediate risk to public safety. These should be attended to within an appropriate time e.g. within 12 months.

The advantage of doing this is that it helps you to decide what work needs to be done first. To prioritise your tree work is a reasonable, acceptable and recognised way of managing your workload. This is particularly useful when dealing with many trees as it helps you to concentrate your resources where they are needed most.

STEP 5. CARRY OUT THE WORK

Tree work should only be carried out when there is a valid reason to do so. Inappropriate pruning harms trees and can make them more dangerous. Felling a tree can sometimes expose and destabilise adjacent trees. You should consult a professional before pruning or felling large important trees. Unless urgent, undertake tree work outside of the nesting season. The local roads authority may need to be notified in advance of work on roadside trees.

RESTRICTIONS ON WORK

The Forestry Act 2014 sets out the legislation governing the felling of trees. For further information, visit the Department of Agriculture, Food and the Marine's website <https://www.gov.ie/en/publication/642e6-forestry/>

Certain trees are exempt from requiring a felling licence. This includes a tree outside a forest, within 10 metres of a public road and which, in the opinion of the owner (being an opinion formed on reasonable grounds), is dangerous to persons using the public road on account of its age or condition. Take photographic evidence to justify this decision. Landowners should also be aware of the requirements of the Section 40 of the Wildlife Act 1976 as amended by the Wildlife (Amendment) Act 2000. These Acts stipulate that it is an offence to destroy vegetation on uncultivated land between the **1st of March** and the **31st of August** each year and it is also important to be aware that trees may have protected species associated with them which may influence what work is permitted.



HEALTH AND SAFETY IN TREE WORK

Chainsaws can be hazardous to the operator and to people in their vicinity. In the hands of inexperienced or unqualified people they can be extremely dangerous and can lead to horrific accidents and even death.

No one should use a chainsaw without the appropriate level of training, experience and personal protective equipment (PPE).

If you are carrying out tree work:

- Plan your work
- Assess the site and identify hazards
- Avoid working alone
- Let someone know where you are and when you expect to be back
- Ensure that your PPE and chainsaw are fit for purpose
- Have a first aid kit suitable for chainsaw use
- Carry a mobile phone

If tree work needs to be carried out after a storm, assess the site carefully for hazards and don't forget to look up – broken branches or 'hung up' limbs can be hazardous to workers below.

Most tree work involves chainsaws and working at height. Tree felling and tree work at height require trained, skilled and competent operators and it is recommended that only professional contractors are used. If engaging contractors to carry out work on your property, please make sure that they are insured and competent to carry out the work.



Only professional contractors should undertake tree work at height

MANAGING IVY GROWTH ON TREES

It is important to be aware that ivy is a valuable habitat and food source for native wildlife, including pollinators. Where heavy ivy growth prevents a visual check of the stem and base of a tree, a small section of the ivy may be cut back in order to allow for a more thorough examination of the tree stem for defects. The ivy stems should be cut close to ground level and again at 1 to 1.5m height, removing the cut section. This should be undertaken manually, taking care not to injure the tree stem.

Ideally this should be undertaken in winter to avoid damage or disturbance to wildlife. Ivy does not kill trees, but it does increase the wind resistance of the tree crown during winter storms.


STEP 6. KEEP RECORDS

It is not necessary to record every tree inspected but it is necessary to record the following;

- The areas that were inspected, when and by whom
- The trees that were deemed to require attention; and
- The tree work that was carried out, when and by whom

In the rare event of an accident occurring, records provide the basis of proof of reasonable tree management having been carried out.

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SUMMARY - MANAGE YOUR ROADSIDE TREES

Trees are a valuable asset and they need to be managed. Managing your roadside trees does not have to be difficult or expensive but it is something you need to do to protect yourself and those using the roads around your property. Remember that if you are uncertain about the condition or safety of a tree you should seek the advice of a professional.



USEFUL REFERENCES

- HSA, 2015, *Chainsaw Safety Training Advice Information Sheet*. Health & Safety Authority.
- Humphries D & Wright C (2021) *Fungi on Trees: A Photographic Reference*. The Arboricultural Association. UK available from the Arboricultural Association at <https://www.trees.org.uk/Book-Shop>
- Lonsdale, D (ed.) (2013). *Ancient and Other Veteran Trees: Further Guidance on Management*. The Tree Council, London.
- Mattheck, C (2007) *Updated Field Guide for Visual Tree Assessment*. Forschungszentrum Karlsruhe GmbH. Karlsruhe, Deutschland.
- NTSG (2011) *Common Sense Risk Management of Trees*. National Tree Safety Group. The Forestry Commission, Edinburgh, UK.
- Smiley, T, Matheny, N & Lilly, S (2017) *Tree Risk Assessment. Best Management Practices*. 2nd Ed., International Society of Arboriculture
- Watson, G & Green, T (2011) *Fungi on Trees – An Arborists’ Field Guide*. The Arboricultural Association.



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