

Field Boundary Management



Agri-Environment Training Programme



Page	
3	Introduction
3	Field Boundaries on the Farm and Agri-Environment Schemes
4	Further Advice on Hedge Management
7	Hedge Restoration
11	Establishing a New Hedge
15	Weed Control
15	Claiming Agri-Environment Payment for Hedge Planting, Laying or Coppicing and Stone Wall Restoration
17	Further Advice and Information
18	Other Useful Contacts

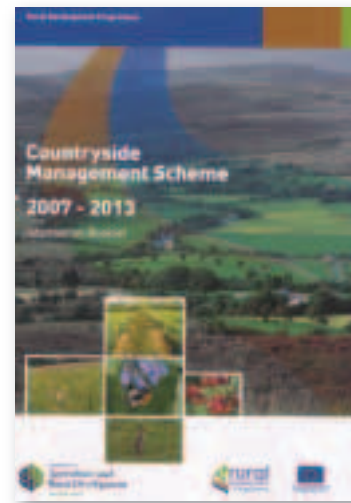
Introduction

The Northern Ireland farmed landscape is characterised by field boundaries. They provide shelter for stock, nesting cover for birds and a variety of habitats and food for wildlife. Effective management is important to ensure field boundaries are maintained and continue to provide shelter and a valuable habitat for wildlife.



Field Boundaries on the Farm and Agri-Environment Schemes

Detailed information on agri-environment field boundary management requirements, field boundary restoration management requirements and restored field boundary protective fencing conditions and standards are found in the Northern Ireland Countryside Management Scheme 2007-2013 Information Booklet for participants who joined the scheme from 2009. The Agri-environment Scheme Explanatory Booklet (Environmentally Sensitive Areas Scheme and Countryside Management Scheme) details the conditions and standards for participants who joined these schemes between 2005 and 2008. These publications are available at www.dardni.gov.uk



All agri-environment scheme participants must manage their field boundaries according to the management requirements of their specific scheme. This booklet covers the general management of all on-farm boundaries found on the farm such as hedges, stone walls, stone banks, earth banks, sheughs, waterways and fences, including hedge restoration and how to plant a new hedge.

Cross-Compliance and Agri-Environment Scheme Field Boundary Rules

Cross-Compliance applies to farmers in receipt of payments for Single Farm Payment (SFP) Scheme, Less Favoured Area Compensatory Allowances (LFACA) Scheme and/or agri-environment schemes with a start date on or after 01 January 2009. Good Farming Practice applies to farmers in receipt of payments for agri-environment schemes with a start date before 01 January 2007.

These farmers must not:

- Remove field boundaries except by prior written permission from DARD, using FBR1 form 'Application to remove a Field Boundary form' which is available from DARD offices
- Cut, coppice or lay hedges between 1st March and 31st August.

Agri-Environment Scheme rules

In addition, participants in an agri-environment scheme must also:

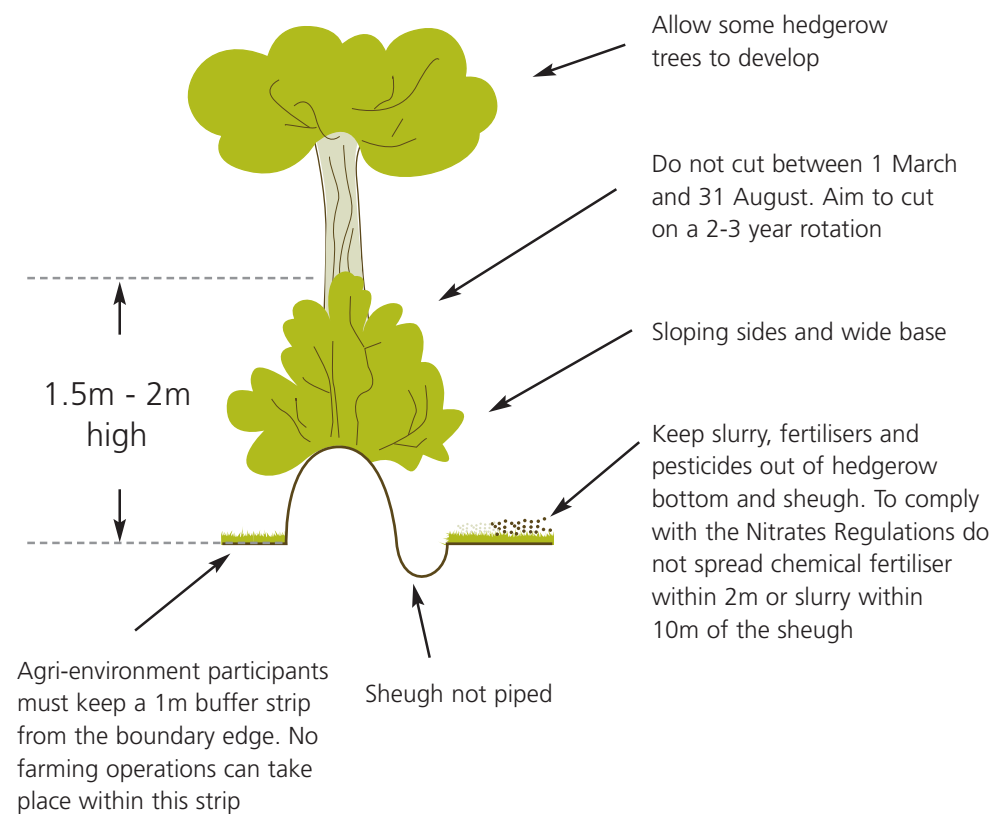
- Maintain all external boundaries (march ditches) in a stock-proof condition to maximise biosecurity
- Leave a 1m uncultivated strip as a buffer from the edge of the field boundary. The application of organic and inorganic fertiliser, slurry, pesticides or herbicides is not permitted in this strip
- Maintain a variety of hedge heights and widths
- Not cut any hedge more than once in two years. Hedges along roads may be faced annually for safety reasons
- Allow suitable hedges to grow uncut for five years or longer, trimming sides only as necessary
- Retain mature trees and allow saplings to grow into hedgerow trees
- Protect stone walls and stone banks from deterioration and all stones in walls must be retained. Routine maintenance/repair is a requirement under general field boundary management and is not paid for through the field boundary restoration option
- Keep all sheughs open. Infilling or laying drainage pipes in sheughs is not permitted.

Further Advice on Hedge Management

- Hedge cutting should be left as late in winter as practical (January/February) so that birds can feed on berries and fruits
- Hedges trimmed to an A-shape are best for wildlife and shelter
- Maintain hedges to a minimum height of 1.5m
- Aim for at least one tree in every 30m of hedgerow.

The 'Ideal' Hedgerow

Routine hedge management to achieve the 'Ideal' hedgerow is good practice whether your farm is in an agri-environment scheme or not.



Stone wall management

- Dislodged stones along dry stone walls should be placed back in the wall.



Sheugh management

Although the main purpose of sheughs (or ditches) is to drain the land, they are also valuable landscape and wildlife features and important for many plants, mammals, birds and insects. Sheughs should therefore be managed, not only as drainage channels, but also as valuable wildlife habitats.



Carry out maintenance and cleaning

- Retain as many water-loving plants as possible
- Only carry out sheugh maintenance and cleaning during the autumn to late winter period
- Deepening or widening of sheughs is not permitted for agri-environment scheme participants
- Leave vegetation untouched along one side of the sheugh at cleaning.



Please note:

- All sheughs must be kept open. Infilling or laying drainage pipes in sheughs is not permitted without prior approval from DARD
- All watercourses, including sheughs, must be kept free from pollution
- A Waste Management Exemption is required from NIEA to spread the dredgings and plant material cleared from waterways. Remember to register for the Simple Agricultural Waste Exemptions on your Single Application Form in May.

Hedge Restoration

Many field boundaries are in poor condition due to neglect, over-management or damage by livestock. Many of these boundaries are suitable for hedge restoration and regeneration by

- laying and interplanting the gaps,
- coppicing and interplanting the gaps, or
- hedge replanting.

Not all hedges will be suitable for coppicing/laying. Examples of such unsuitable hedges are ones that are already tall and thick or lines of mature trees – these are best left alone or just trimmed.

Payment is available through agri-environment schemes for hedge planting/restoration which includes fencing, if needed to protect the hedge. The minimum standard for protective fencing is normally woven wire (pig/sheep (8/80/15)) fence with two strands of barbed wire or five rows of barbed wire. This must be completed to at least BS 1722 standards.

The following photographs should help you decide which type of restoration is most appropriate for your hedges.

Gappy hedges

A gappy hedge contains plants that are not bushy at ground level. This means the hedge gives little shelter and is not stock-proof. Gappy hedges can be thickened either by laying or coppicing the bushes.



Gappy hedge suitable for laying



Gappy hedge suitable for coppicing and interplanting



Hedge laying is suitable where the stems are up to 10 centimetres (4 inches) in diameter and 2.5-3 metres (8-10 feet) high (see photograph on page 7).

However, with due care and attention it is possible to lay thicker stems. All hedge laying should be carried out during late autumn or winter, but not during periods of hard frost.

Gaps greater than 1m in length in the hedge must be interplanted with a mixture of species, for details see page 9. Any new areas of planting should be kept free from weeds. Use a billhook or slasher to cut out briars or elder and trim back growth on the near side of the hedge. Leave the top of the hawthorn bushy to create an effective barrier once it is laid. Cut living stems close to ground level, roughly three-quarters of the way through, leaving a connecting strap of living tissue. They are then bent over in an upwards direction. Always lay the stems uphill to take advantage of the natural upward movement of sap. New regrowth will sprout from the laid stems and from the stumps. This will help to thicken the hedge. Fencing both sides of the laid hedge will be necessary to protect it from grazing animals. The fence should be placed at least 1 metre away from the centre of the hedge on either side.

Facing a hedge or cutting a hedge down to about 5 feet in height or level with the top of the fence will not produce a hedge that is thick at the base and is therefore not eligible for agri-environment field boundary restoration payment.

Hedgerow trees (in the form of whips) must be planted in laid hedges where there is less than one tree/sapling every 10-15m, but avoiding regular spacing of trees. Existing saplings should be left untouched to allow them to develop into mature trees and mature trees should also be left untouched.

Coppicing is used to restore or regenerate gappy hedges, which have stems too thick for laying (over 10 centimetres or 4 inches diameter). The stem is cut right through, about 10 centimetres above ground level. Try to cut leaving a slight angle on the stump to let rain run off it. New shoots will emerge from cut stumps. Coppice during the dormant season, preferably February, but not during periods of hard frost.

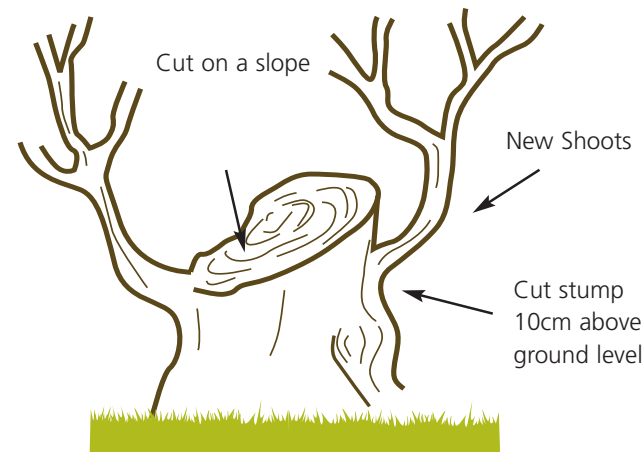
Close up any gaps greater than 1 metre by interplanting with new plants such as hawthorn, blackthorn, hazel, holly, guelder rose, dog rose and beech. When planting short gaps (1-2m) of a mainly hawthorn hedge, more than 50% of the new hedge plants should be species other than hawthorn. For larger gaps (greater than 2m) follow the guidelines for new hedge planting (see page 11 and 12). A single row is acceptable if planting up short gaps in an existing hedge, provided the plants are spaced at 15 centimetres (6 inches) apart. A double row should be planted where gaps are more than 2 metres (6½ feet). Well-rotted farmyard manure can be dug in to retain moisture and increase nutrients.

Any new areas of planting should be kept free from weeds.

Fencing both sides of the coppiced hedge will be necessary to protect it from grazing animals. The fence should be placed at least 1 metre away from the centre of the hedge on either side.

Facing a hedge or cutting a hedge down to about 5 feet in height or level with the top of the fence will not produce a hedge with a thick base and is therefore not eligible for agri-environment field boundary restoration payment.

Hedgerow trees (in the form of whips) must be planted in coppiced/interplanted hedges where there is less than one tree/sapling every 10-15m, but avoiding



This coppiced stump, cut with a slope, is pictured a few months after it was cut. It has already produced new shoots and it will successfully regrow into a thick hedge plant.

regular spacing of trees. Existing saplings should be left untouched to allow them to develop into mature trees and existing mature trees should also be left untouched.

Burning bushes/hedge trimmings

As a result of hedge management or restoration work, piles of cut bushes or hedge trimmings may be left sitting in fields ready to be burned. Birds, such as the wren, will be attracted to these 'habitat piles' that could provide shelter for safe nesting places from March onwards. It is therefore recommended to leave all burning of cut branches until September. This is to avoid damaging or disturbing any birds, nests or chicks, or other animals which may have taken shelter there, and complies with the Wildlife (Northern Ireland) Order 1985 (as amended).

The unregulated burning of agricultural wastes is no longer permitted under the Waste Management Regulations (NI) 2006. However, small quantities of plant matter (up to 10 tonnes of waste plant tissue in any 24 hour period) may be burned in an open bonfire by the producer of the waste at the place of production provided an exemption is obtained from NIEA. Remember to register for the Simple Agricultural Waste Exemptions on your Single Application Form in May.

Where the bushes have been cut on habitat areas, for example, species rich grasslands, it may only be burned off-site on improved, unimproved or semi-improved grassland. This is because any vegetation on the fire site is destroyed, and the soil becomes enriched with mineral ash. This fire site becomes colonised by rank invasive vegetation such as nettles, with only very slow if any recovery to more natural conditions.

Establishing a New Hedge

Boundaries suitable for hedge planting or restoration:

- where a hedge has been removed in the past
- townland boundaries
- boundaries where an existing hedge is gappy
- boundaries which are not too wet or not too dry
- where there is an Ordnance Survey record of an old boundary on a map.

Boundaries not suitable for hedge planting or restoration:

- a hedge did not previously exist
- in upland areas above the tree/hedge line
- along existing stone walls
- where sight lines could be reduced
- areas liable to flooding
- areas which are very wet
- those which are very dry or have extremely stony banks with no soil
- within 10m of a historic monument
- lines of mature trees
- where the line of vision could be obstructed or at dangerous bends.

Approval should be sought from the Department of Regional Development (DRD), Roads Service, before any field boundary restoration work is undertaken on roadside field boundaries or before new fences are erected alongside roadways. Replacement fences must follow the line of existing fences.

Approval must be sought from NIEA before hedge planting or restoration takes place in designated sites.

When planting a new hedge remember to:

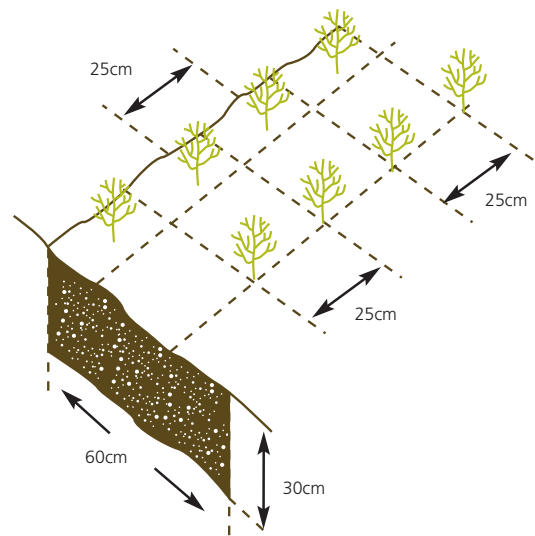
- Follow the exact line and contours of the original field boundary
- Never remove existing earth/stone banks to provide a site for a new hedge
- Never use diggers or excavators to straighten, level or remove existing field boundaries
- Plant a mixture of native hedge species throughout the length of the hedge. New hedges dominated with single species such as beech or copper beech do not meet the agri-environment management requirements
- Never plant beech as a hedgerow tree – mature beech will shade out the hedge species beneath it and leave the boundary soil very dry.

Site preparation. On grassy sites, spray off a one metre wide strip with glyphosate about four weeks before planting. Dig or cultivate a trench 30cm deep and 60cm wide (1 x 2 feet). Alternatively, spray off a one metre wide strip with glyphosate, plough two furrows back to back and plant on the ridge that is formed. Where a new hedge is to be planted on the site of an old hedge, add some well-rotted farmyard manure into the bottom of the trench.

Plant in mild dry weather between October and March.

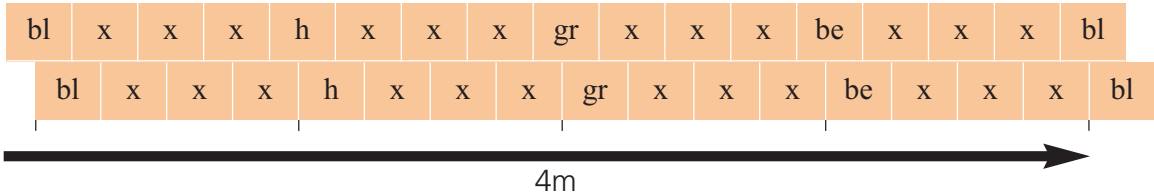
Avoid very wet or frosty weather.

Do not let roots dry out. Hedging plants will dry out and die very quickly if the roots are exposed to wind. If there is any delay between purchase and planting, bury the roots of the plants in moist soil or moist sand. When planting, work the soil in and around the roots carefully and firm the plants into the ground at the same depth as they were in the nursery (marked by a ring around the bark).



Plant a double staggered row - with 25-30 cm (10-12 inches) between plants and 30 cm (12 inches) between rows (approximately 8 plants per metre).

Example of how a hedge should be planted using a mix of species such as hawthorn quicks, hazel, beech, blackthorn and guelder rose



Key:

- x: hawthorn quick** **h: hazel** **be: beech**
bl: blackthorn **gr: guelder rose**

When planting a new hedge use a mixture consisting of 75% hawthorn and 25% other species. Plant a double staggered row with 8 plants per metre. Of the 8 plants, 6 should be hawthorn quicks and 2 from a mix of at least 4 other species. When planting use the following suggested pattern (see diagram on p.12) and a mixture of species as given below:

1st metre - plant 6 hawthorn + 2 others

2nd metre - plant 6 hawthorn + 2 others

3rd metre - plant 6 hawthorn + 2 others

4th metre - plant 6 hawthorn + 2 others

5th metre - plant as 1st metre

6th metre and onwards - repeating the plan for the 2nd to 4th metre above.

Each 100m to be planted will require 800 hedgerow plants made up of:

600 hawthorn quicks.

200 mix of four species such as 50 hazel, 50 guelder rose, 50 blackthorn and 50 beech.

Other species that could be used include dog rose, holly, willow and whin.

In addition for each 100m about 7-10 hedgerow trees will be required.

Prune newly planted hedge plants (hawthorn, blackthorn, hazel, dog rose and guelder rose) to 10-15cm immediately after planting to encourage buds to break from the base and produce thick dense growth. **Do not** prune holly, beech or hedgerow trees after planting.

Protect newly planted hedges from livestock and rabbits by fencing. To ensure cattle cannot reach over and damage the hedge, it is recommended that fences should be a minimum of 1 metre from the centre of the hedge. Where rabbits or hares are a problem, rabbit-proof netting wire will be needed. The cost of rabbit-proof netting is included in the field boundary restoration payment.



Water the hedge thoroughly in prolonged periods of dry weather during the first summer after planting. Replace any dead plants at the end of the first year and then each year for 3-4 years until the hedge has successfully established.

Control weeds in the first 3-4 years after planting for successful establishment.



This hawthorn quick is showing very good signs of growth in mid May a few months after planting and being trimmed to 10cm long.



This is the new hedge in mid May approximately 3 months after planting. Note the use of a polythene mulch to suppress weed growth and the mixture of species planted which include hawthorn (75%), and other species (25%) that includes guelder rose, dog rose, beech, and hazel.



This is the hedge in October approximately 8 months after planting. The hedge has been successfully established with the required mix of species and the minimum of competition from weeds.



Weed Control

Black Polythene Use a one metre wide black polythene strip or equivalent membrane as a surface cover on all newly planted hedges after planting and pruning. The polythene is pushed down over the cut stumps. Plant holly, beech and hedgerow trees after the polythene is put in place by cutting an X in the polythene.

Mulches such as bark chips can help to conserve moisture and suppress annual weeds. However, they will not suppress perennial weeds such as thistles and docks and are therefore not effective if these weeds are a problem. Apply mulch as soon as possible after planting and apply a very thick layer of at least 15cm (6 inches) deep along the full length of the hedge in order to be effective. Weeds in the hedge base and on both sides of the mulch must be removed a few times each year for the first three to four years or until the hedge has successfully established.

Herbicides approved for use along hedges are available in either liquid or granular form. Granular types are particularly easy to apply. There is no risk of drift and spray equipment is not needed. Liquid herbicides can be applied using a knapsack sprayer. Extreme caution must be used when using glyphosate spray to ensure spray drift does not touch the leaves or stems of the hedge. It is highly recommended that glyphosate is not used after the quicks start budding or when in leaf due to the risk of getting spray on the buds/leaves.

Claiming Agri-Environment Payment for Hedge Planting, Laying or Coppicing and Stone Wall Restoration

- When claiming for new hedge planting, laying or coppicing, only claim for work that you have completed
- Carefully measure the length of hedge restoration that you have completed – do not overclaim
- Claim for the correct type (FBR code) of field boundary restoration, number of hedgerow protective fences and use the correct field number
- Facing/trimming hedges or cutting them down to fence level is not acceptable for payment
- Routine stone wall maintenance is not acceptable for payment
- Carefully measure the length of stone wall restoration that you have completed – do not overclaim
- Dry stone walls must be rebuilt from ground level to be eligible for agri-environment field boundary restoration.

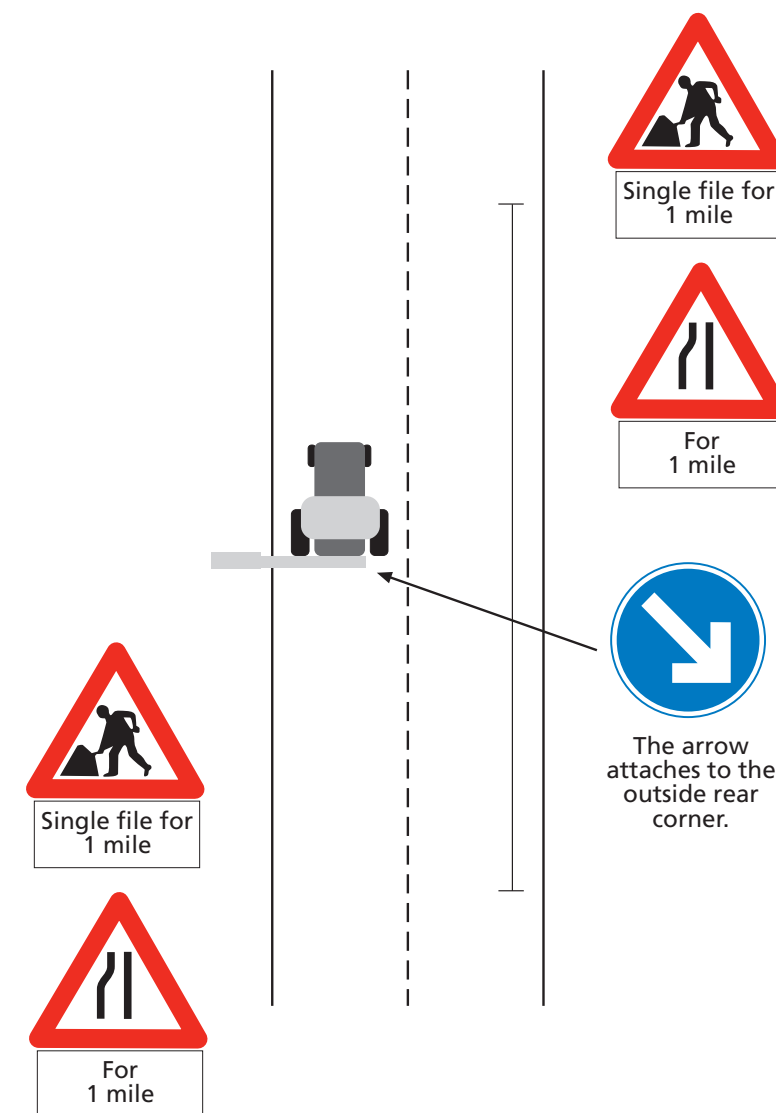
Roadside hedges

Many of our hedges are alongside paths and roads. Roadside hedges need particular care.

On narrow country lanes and alongside public footpaths, it is the landowner's responsibility to ensure hedges do not impair the visibility of motorists or hinder the movement of pedestrians. Special attention is needed at junctions, crossroads, sightlines, farm entrances and at road signs. This may require the trimming of the side of the hedge facing the road twice each year.

All hedge trimming operations should be avoided during the bird nesting season from 1st March until 31st August unless the hedge poses a danger to motorists or pedestrians using the road. Under the Wildlife (Northern Ireland) Order 1985 (as amended), it is an offence to disturb nesting birds.

During cutting of roadside hedges, appropriate road signs must be in place.



Further Advice and Information

DARD
(Note: DARD 0300 numbers are charged at local rate)
www.dardni.gov.uk
www.ruralni.gov.uk

Education and Training
The College of Agriculture, Food and Rural Enterprise Offers training on:

- Cross-Compliance
- Dealing with Farm Nutrients and Wastes
- Nitrates
- Nutrient Management Planning
- Land Eligibility
- Hedge Restoration
- Dry Stone Walling

Tel: 0300 200 7841
www.cafre.ac.uk

DARD Contact Details for Environment topics and related Schemes

Environment
Agri-environment schemes, Countryside Management advice including Cross-Compliance, Nitrates Directive, Codes of Good Agricultural Practice, Farm Waste Management, Uncultivated Land Regulations and Field Boundary Removals.
Tel: 0300-200-7842

Grants and Funding
Single Farm Payment, LFACA, agri-environment, farm, fisheries, forestry and rural development payments and grants, Pre-2005 schemes.
Tel: 0300-200-7848

Other Useful Contacts

<p>Northern Ireland Environment Agency Tel: 0845 302 0008 Website: www.doeni.gov.uk/niea</p> <p>Department for Regional Development Roads Service Tel: 028 9054 0540 Website: www.roadsni.gov.uk</p> <p>HSENI: The Health & Safety Executive for NI Safe Work Practice Queries Freephone: 0800 320 121</p> <p>Reporting Work Place Accidents Freephone: 0800 320 121 Website: www.hesni.gov.uk</p>	<p>Department of the Environment Planning Service Special Studies Unit (for infilling queries) Tel: 028 9041 6886 Website: www.planningni.gov.uk</p> <p>Royal Society for the Protection of Birds Tel: 028 9049 1547 Website: www.rspb.org.uk</p> <p>The Focus Farm Centre at Ai Services Focus Farm Visits and Agri-Environment Training Tel: 0845 026 7536 Website: www.focusfarms.net</p>
--	---

Acknowledgements

Agri-Environment Workshops have been developed on behalf of the Department of Agriculture and Rural Development (DARD) by the College of Agriculture, Food and Rural Enterprise (CAFRE) and comprise of:

Cross-Compliance
Dealing with Farm Wastes
Field Boundary Management

These workshops are delivered by the Focus Farm Centre, on behalf of Countryside Agri-Rural Partnership, as part of the Focus Farm Measure of the Northern Ireland Rural Development Programme 2007-2013 (Axis One). This work is funded by the European Agricultural Fund for Rural Development (EAFRD) and the Department of Agriculture and Rural Development (DARD).

October 2013
ISBN: 978-1-84807-432-3

The Focus Farm Centre @ AI Services (NI) Ltd
www.focusfarms.net
Tel: 0845 026 7536

