

8.1 Hedge Regeneration and Planting

Definition: well-managed hedges provide food and shelter for wildlife, a barrier to livestock, help stop spread of disease, provide shelter to livestock, are an important part of our landscape and define the boundaries of the farm. However many are in poor condition due to neglect, over-management or damage by livestock. A positive programme for hedge restoration and regeneration by either laying, coppicing with interplanting in the gaps or hedge replanting offers the opportunity to improve the value of hedges. The length of hedge regeneration to be carried out each year is agreed at the time of the farm audit and will be noted on the farm management map.

Aim: to maintain the structure, landscape patterns and biodiversity of field boundaries in the countryside through the implementation of a 5-year field boundary management plan through the regeneration and planting of mixed species native hedges.

Biodiversity objectives: the option contributes to the NI Biodiversity Action Plan targets for Ancient and/or Species Rich Hedgerows, the Irish hare and Yellowhammer. Within NI species-rich hedgerows are important for a number of UK priority species identified as part of the UK Biodiversity Action Plan programme. These include Red Squirrel, Common Pipistrelle, Soprana Pipistrelle, Linnet, Reed Bunting, spotted Flycatcher, Tree sparrow, Bullfinch, Song thrush and Purple rampion. In addition a number of NI priority species will benefit. These include Whitethroat, Linnet and Barn Owl.

Management requirements:

- All hedge regeneration **must** follow the exact line and contours of the original field boundary. Existing earth/stone banks must **never** be removed to provide a site for a new hedge. Mechanical aids such as diggers or excavators must not be used to straighten, level or remove existing field boundaries or habitats.
- Newly planted or regenerated hedgerow species must be successfully established along the field boundary. Action must be taken to ensure plants are not grazed by livestock and/or rabbits and hares, or suffer from competition from weeds/grasses. All dead plants must be replaced at the end of the first year.
- When planting a new hedge a mixture of hedgerow species **must** be planted along the length of the hedgerow. Plant at least five native woody species throughout **each** 30 metre length of hedge, using a recommended mixture consisting of 75% hawthorn: 25% other species such as blackthorn, hazel, holly, dog rose, whin, beech, guelder rose and willow. Ensure that a mix of species is planted along the full length of the hedge.

- Single species hedges, for example, beech or hawthorn, are not acceptable. **No ornamental species are acceptable for grant aid and these should never be planted in the open countryside.**
- When planting a new hedge, a double, staggered row (see diagram below), must be planted with 250-300 mm (10-12") between plants and 300 mm (12") between rows. This works out at approximately 8 plants per metre. A single row is acceptable if planting up short gaps (less than 2m) in an existing hedge, provided the plants are spaced at 15 cm (6") apart. A double row should be planted where gaps are more than 2 metres.
- Hedgerow trees (in the form of whips) **must** be planted along the length of a newly planted hedge, placed about 10-15 metres apart, avoiding regular spacing of the trees.
- Grass and weeds must be controlled in a newly planted hedge (see below for details on different control methods).
- A newly regenerated/planted hedge **must** be protected from grazing livestock and rabbits. It is recommended that the fences should be at least 2m apart, each fence being 1m away from the centre of the hedge.
- The stems of hedges suitable for coppicing must be cut down to about 15cm (6") above the ground along the full length of the hedge and any gaps replanted. A single row is acceptable if planting up short gaps (less than 2m) in an existing hedge, provided the plants are spaced at 15 cm (6") apart. A double row should be planted where gaps are more than 2 metres.
- The stems of hedges suitable for laying must be laid over along the full length of the hedge (see below for hedge laying details) and any gaps replanted. A single row is acceptable if planting up short gaps (less than 2m) in an existing hedge, provided the plants are spaced at 15 cm (6") apart. A double row should be planted where gaps are more than 2 metres.
- Plant gaps in the coppiced/laid hedge with a mixture of species including hawthorn, holly, hazel, beech, blackthorn, guelder rose and dog rose. When planting short gaps (less 2 metres) of a predominantly hawthorn hedge, more than 50% of the new hedge plants should be species other than hawthorn. For longer gaps, follow the guidelines in the hedge planting section below. Include native trees at intervals of 10 to 15 metres, avoiding regular spacing.

Further advice

When planting a new hedge never:

- Remove existing earth/stone banks.
- Plant a hedge where hedges did not previously exist.
- Plant a hedge in upland areas dominated by earth/sod banks with only an occasional shrub or tree.
- Plant a hedge along existing stone walls.
- Remove a stone wall and replace with a hedge.

Approval will not be given for fencing on the outer (road) side of restored field boundaries that run alongside public roads. Fencing will only be approved on the field side of such hedges. Approval must be sought from DOE Roads Service before new fences are erected alongside roadways. Replacement fences must follow the line of existing fences.

Hedge Laying

1. Hedge laying is best suited to hedges with stems around 5cm -15 cm in diameter and 2.5 to 3 m high. However it is possible to lay thicker stems.
2. All hedge laying must be carried out during the winter months (October to February), but not during periods of hard frost.
3. If necessary face the hedge on both sides with a mechanical hedge trimmer or billhook/slasher. Leave the tops of the hawthorn bushy so that they will form an effective barrier when laid.
4. Cut between half to three-quarters of the way through the main stems at 3-10 cm (1-4") above ground level and lay over the stems at an angle of about 30 degrees, always working in the same direction. Always lay the stems uphill. Take care not to break the bark on the underside when laying the stems.
5. Cut stems may be held in position using stakes as required. This helps to stabilise the hedge.

Hedge Coppicing

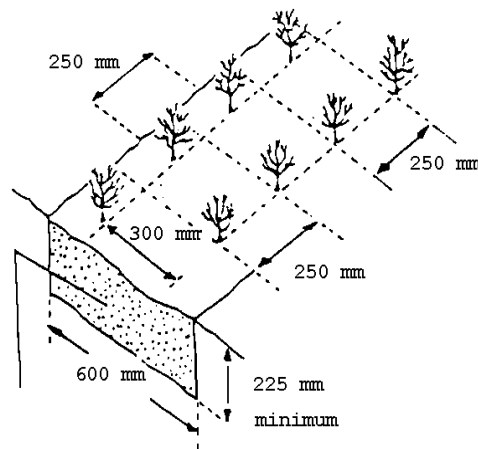
1. Hawthorn and blackthorn will readily produce shoots from cut stems.
2. Hedges can be regenerated by cutting down to ground level (coppicing).
3. Cut the hedge to within 10 cm (4") of ground level. Cut at a slope to shed rain.
4. Coppice in the dormant season, but not after 28/29 February.

Hedge planting

1. Careful site preparation is essential. On grassy sites, spray off a one metre wide strip with glyphosate about four weeks before planting. Dig or cultivate a trench 300mm deep and 600mm wide. Alternatively, spray off a 1 metre wide strip with glyphosate, plough two furrows back to back and plant on the ridge that is formed. When planting on a bank, plant at the base of the bank to avoid the plants suffering from drought.
2. Avoid planting on waterlogged or very exposed sites and always ensure the site has sufficient topsoil. 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.

3. Suitable hedgerow species include hawthorn, blackthorn, hazel, holly, gorse (whin), willow, beech and dog rose. Suitable tree species include oak, rowan, whitebeam, birch, alder, willow, crab apple and wild cherry. Do not plant beech, horse chestnut, lime or sycamore as hedgerow trees these will shade out the hedge.
4. Hedging plants should have a minimum root collar diameter (measured at the base of the stem) of 6 mm, a minimum height of 40-60 cm with a healthy fibrous root system. Hedging plants may be either bare-rooted or cell grown.
5. Plant hedges during periods of mild, dry weather between October and March. Avoid planting in very wet or frosty weather.
6. 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. Never store the plants in water.
7. 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). Plants should be planted in a double staggered row with 250mm between plants and 300mm between rows (see diagram below).
8. Prune newly planted hedge plants to 10 to 15 cm immediately after planting to encourage buds to break from the base and produce thick dense growth (except holly, beech or hedgerow trees).
9. Plants grown from seed collected locally within Northern Ireland are better adapted to our climate and soil conditions.
10. Hedges must be fenced off from livestock and rabbits. To ensure cattle cannot reach over and graze the hedge, it is recommended that a minimum width of 2 metres should be left between fence lines. Where rabbits or hares are a problem, rabbit-proof netting wire will be needed.
11. Water thoroughly in prolonged periods of dry weather during the first summer after planting.

Hedge planting



CULTIVATED STRIP

Weed Control

Newly planted hedges will suffer severe damage or complete destruction if weeds are not properly controlled during the first few years after planting.

Weed control can be achieved using black polythene sheeting, mulches, residual herbicides or hand weeding. Of the three, polythene sheeting gives by far the most reliable results.

Black polythene sheeting

Where practical, the most satisfactory method of weed control is achieved by using 200-gauge black polythene sheeting. A 1 metre wide strip is ideal. It is best laid **after** planting thorn quicks and other species that can be coppiced, but before planting hedgerow trees and species such as holly or beech.

After planting at the recommended spacing, use secateurs to prune hawthorn, blackthorn, hazel, guelder rose and dog rose at 10cm to 15cm above ground level. Cut at a steep angle, preferably a few millimetres above a bud.

Lay the polythene over the pruned stems and push downwards – the stems will pierce the polythene. Place some loose gravel here and there to hold the polythene in place until planting is completed.

Plant hedgerow trees plus holly and beech by making two short cuts in the polythene in the shape of an X and folding back the flaps of polythene. Dig a suitable hole in the exposed soil, plant the tree whip or holly/beech and replace the flaps.

Finally cover the polythene completely with 30 to 40mm of loose gravel or other heavy inert material.

Polythene put in place in this manner will give good weed control provided weeds and particularly creeping grasses are not allowed to spread across the polythene from the sides. Sites should be closely inspected several times each year for the first 3 or 4 years and any weed problem dealt with immediately.

Mulches

Mulches help to conserve moisture and suppress annual weed growth. However they do not suppress perennial weeds such as thistles or docks and are thus ineffective where these weeds are a problem. An example of a suitable mulching material is bark chips.

Ideally, spray the area to be planted with glyphosate 2 to 4 weeks before planting. The sprayed area and the mulch must extend 300mm beyond the width of the hedge along both sides. Organic mulches must be 10-15 cm (4-6") deep to prevent weed germination, but the mulch must not be allowed to smother the stems of the quicks. Apply the mulch as soon as possible after planting.

Herbicides

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. Ensure all herbicides are kept 10m away from a watercourse. Herbicides suitable for use in hedges include:

- **Propyzamide** - Available in granular or liquid form as 'Kerb'. It is only effective in cold weather and should be applied before the end of December in lowland and the end of January in upland areas. 'Kerb' is the only herbicide recommended for use in the first year after planting. It should not be used more than once in any 9-month period.
- **Glyphosate** - Weeds must be actively growing with adequate green leaf area for effective control. Always use a guard fitted to the sprayer. **Extreme caution must be used to ensure spray drift does not make contact with the leaves of the hedge.**
- **Dichlobenil** - in the granular form, known as 'Casoron G', may be applied from November to March to control weeds such as grass, docks, nettle, bracken and thistle. Casoron G should only be applied to hedgerows which have been established for two years or more.

Always read the label carefully before using any of these herbicides and follow manufacturer's instructions.

Areas of Special Scientific Interest (ASSIs)

Note: Consent must be obtained from the Environment & Heritage Service (EHS), Department of the Environment before any works are carried out within or along an ASSI boundary. The EHS contact telephone number for further information is 028 9054 6595.

Management plans are provided for participants in the **Environmentally Sensitive Areas and Countryside Management Schemes**

