

# Establishing a Stockproof Hedge on the Farm

SOURCE: JOHN CASEY (2025).

Teagasc

## Why Plant a Stockproof Hedge?

Stockproof hedges are multifunctional, living boundaries that provide a cost-effective and environmentally sustainable alternative to conventional fencing. In agroforestry systems, their value is further enhanced as they serve multiple roles: acting as durable barriers for livestock and enabling rotational grazing; forming shelterbelts that moderate wind and improve microclimates; and creating ecological corridors that support pollinators, birds, bats, and small mammals.

Hedges also contribute to soil and water conservation by reducing erosion and filtering runoff, while offering aesthetic and cultural benefits that strengthen landscape identity. Additionally, they produce valuable biomass—such as berries, firewood, and rootstocks—and contribute to biodiversity and carbon sequestration. On agroforestry farms, hedges link trees with crops, frame alley systems, and establish edge habitats that underpin resilient, productive landscapes.



**FIGURE 1. TYPICAL IRISH STOCKPROOF, HAWTHORN HEDGE**

## Planning and Site Selection

Planning for a stockproof hedge should begin in late spring to early summer with species selection and site assessment, followed by planting during the dormant season, normally between November and February. Ideal sites are on well-drained lower slopes, avoiding waterlogged or exposed ridges. Hedges should be oriented to intercept prevailing winds for maximum shelter and designed to divide land for rotational grazing or to protect sensitive crops. It is essential to ensure future access for tools, livestock, and vehicles, and to consider interactions with nearby tree rows by minimizing shade and root competition. A double staggered row—spaced 20 to 30 cm between rows and 25 to 40 cm between plants, totalling 8 to 9 plants per metre—promotes quick canopy closure within two to three years. Phasing hedge establishment over several seasons supports better management and learning opportunities.

## Species Selection for Multiple Benefits

A resilient, long-lasting stockproof hedge relies on the use of diverse, locally adapted native species that offer structural integrity, ecological value, and productive benefits. In Ireland, hedges are typically built around a core of hawthorn (*Crataegus monogyna*), which is valued for its dense, thorny growth and suitability for hedge laying. Complementing this are blackthorn (*Prunus spinosa*), which spreads by suckers and flowers early; holly (*Ilex aquifolium*), an evergreen that provides winter cover and berries; and hazel (*Corylus avellana*), which is ideal for coppicing and nut production.

Additional species add biodiversity and seasonal interest. Dog rose (*Rosa canina*) grows quickly and supports insects through its hips; Guelder rose (*Viburnum opulus*) offers ornamental value and bird-friendly berries; and spindle (*Euonymus europaeus*) contributes autumn colour and serves as habitat for aphid predators. Other beneficial additions include crab apple (*Malus sylvestris*) for spring blossom and fruit, rowan (*Sorbus aucuparia*) for its hardiness and bird-attracting berries, and oak (*Quercus robur*), a keystone species that supports a broad range of wildlife.

Other species that may be used in moderation include field maple (*Acer campestre*), silver birch (*Betula pendula*), and alder (*Alnus glutinosa*), depending on soil type and landscape context. However, certain species should be avoided due to risks of invasiveness, toxicity, or incompatibility with mixed hedgerows. These include Leyland cypress (*Leylandii*), cherry laurel (*Prunus laurocerasus*), rhododendron (*Rhododendron ponticum*), yew (*Taxus baccata*), elder (*Sambucus nigra*), and box (*Buxus sempervirens*). Choosing the right mix of native species is essential to ensure the



FIGURE 2. EXAMPLES OF WHITETHORN, OAK, ALDER AND WILLOW

hedge remains functional, diverse, and ecologically valuable over the long term.

## Soil Preparation, Planting and Maintenance

Successful hedge establishment depends on thorough soil preparation to relieve compaction, improve drainage, and eliminate competition from weeds and grasses. Begin by clearing a 1-metre-wide strip along the planting line using either glyphosate or manual methods. A trench approximately 50–60 cm wide and 25–30 cm deep should be dug, with compost or well-rotted manure incorporated into the backfill. Avoid rotavating alone, as it may create a compacted layer (hardpan), and consider ridging the soil slightly to aid drainage.

For planting a 100-metre hedge, use 500 hawthorn (*Crataegus monogyna*), 100 blackthorn (*Prunus spinosa*), and 15–20 each of holly (*Ilex aquifolium*), hazel (*Corylus avellana*), dog rose (*Rosa canina*), Guelder rose (*Viburnum*

*opulus*), and spindle (*Euonymus europaeus*). Additionally, include 5–10 native trees such as oak (*Quercus robur*), rowan (*Sorbus aucuparia*), or birch (*Betula pendula*), spaced every 20–30 metres.

Use bare-root whips (two-year-old plants, 45–90 cm tall), soaking the roots for one hour before planting. Planting should be done in double staggered rows using either a spade or notch technique, ensuring firm soil contact and avoiding J-rooting or loose fill. Plant immediately after delivery and protect from frost. This layout promotes dense, even growth.

Weed control is vital in the first three to five years. Herbicide methods involve applying glyphosate 4–6 weeks before planting and spot-treating around whips thereafter, using shields to avoid damage to nearby plants. Alternatively, non-chemical options include mulching with black plastic and quarry dust, straw, bark, or compost; overlapping cardboard sheets; or manual hoeing several times per season. Mulch and fencing also help prevent livestock interference and reduce maintenance.

Aftercare in the first three years is crucial. Hedge lines should be fenced off (at least 1 metre) to exclude deer, goats, hares, and rabbits. Any failed plants should be replaced annually with the same species. Cut hawthorn whips back to 10 cm after planting to promote base branching. In winters of Year 2 and 3, trim growth back to 30 cm to encourage dense structure, aiming to develop an A-shaped profile—broad at the base and narrow at the top. From Year 5 onward, shift to light shaping cuts, and avoid topping, which can lead to leggy, open hedges.



FIGURE 3. RECENTLY PLANT AND CUT HAWTHORN PLANTS



FIGURE 4. RESULTING BASE BRANCHING OF HAWTHORN PLANTS

## Long-term Hedge Management

Long-term hedge management involves periodic rejuvenation to maintain structure, density, and functionality—particularly for stockproofing. One traditional and effective method is **hedge laying**, where stems are cut about three-quarters through and bent over near ground level. These are then secured with stakes or bindings, which stimulates dense regrowth from the base and reinforces the living barrier. Hedge laying is particularly effective for species such as hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), and blackthorn (*Prunus spinosa*).

An alternative approach is **coppicing**, in which stems are cut completely to 25–50 cm above the soil. This encourages vigorous regrowth from the stool or roots and can be used to regenerate the hedge structure or produce material



for firewood, fence posts, or biomass. Where necessary, gaps created through coppicing can be replanted to restore continuity.

Both rejuvenation techniques are best carried out on a rotational basis—such as treating one-third of the hedge each year—to avoid excessive disruption and maintain habitat value. Importantly, all major cutting work should be scheduled outside the bird nesting season to comply with ecological best practices and legal protections.

## References

Teagasc (2010). Planting a Stockproof Hedgerow - Factsheet 2. Teagasc Forestry Development Department. Direct Link:

<https://www.teagasc.ie/media/website/crops/forestry/advice/stockproofhedge.establishment.factsheet>

Teagasc (n.d.). Hedge Establishment - Environmental Advice. Teagasc Agriculture and Food Development Authority.

Direct Link: <https://www.teagasc.ie/crops/forestry/advice/environment/hedge-establishment>

CAFRE (2022). Hedgerow Establishment and Restoration Guide. College of Agriculture, Food and Rural Enterprise.

Direct Link: <https://www.cafre.ac.uk/wp-content/uploads/2022/11/Hedgerow-establishment-and-restoration.pdf>

### Additional Information:

The Teagasc website contain additional podcasts and video clips on how to establish and manage hedgerows.

<https://www.teagasc.ie/environment/biodiversity--countryside/farmland-habitats/hedgerows/>

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