Hedgelaying is a traditional form of hedgerow management. It involves the partial severing of woody plants, at a point just above ground level. The cut stems, known as pleachers or plashers, are then laid over and interwoven to form a living fence. Most broadleaved woody shrubs and trees can be successfully laid including, hawthorn, blackthorn, holly, hazel, ash, and rose. Coppicing is a more drastic form of management involving the cutting back of plants to ankle height. It is used on plants which are beyond laying. When successful it results in the growth of new stems from the stump.

**Introduction**

A casual assessment of old hedges in the County reveals that hedgelaying was at one time far more widely practiced than today (Illustration 1). In common with many labour intensive agricultural practices it has declined in popularity since the second world war as maintenance by mechanical trimmers and the use of wire fences have come to be seen as more cost effective alternatives.

Recently, interest has been renewed in hedgelaying as a result of changing priorities in countryside policy. Coupled with the recognition that many hedges, widely regarded as being a key component in the character of the English countryside, are in decline due to neglect and poor management.

**why lay hedges**

In the past, hedgelaying was a routine management operation undertaken to maintain hedges in a stockproof condition. It also has a key role to play in ensuring the long term survival of hedgerows. Periodic laying can greatly increase the natural lifespan of hedgeplants, the process stimulates the growth of new shoots and can reinvigorate all but the most senile of plants.

Hedges which are allowed to grow out will over time get thin at the base and in the continued absence of management grow out into lines of trees with little value as a fence. Eventually plants start to die off (Illustration 2) and gaps develop. If no action is taken, the hedge will ultimately disappear. This form of neglect is one of the main causes of hedgerow decline.

Hedges can be kept in a functional state for a considerable period of time by trimming alone but ultimately start to get thin at the base losing their ability to contain stock. If no remedial treatment is applied, the plants will in time lose their vigour and start to die off. This process is accelerated where trimming is particularly severe. The increasingly widespread presence of gaps in many trimmed hedges bears testimony to this ongoing process.

Hedgelaying (or coppicing) is essential to the long term survival of hedgerows. When used in conjunction with an appropriate trimming regime hedges can be maintained in a functional, vigourous state indefinitely. In the long run this approach is more cost effective than fencing and offers greater benefits in the form of shelter for stock and cover for game and other wildlife.
Assessing the suitability of hedges for laying

Ultimately all hedges require laying if they are to be retained. How frequently it should be undertaken will depend on the rate of growth and whether or not the hedge is required to serve as a stock proof barrier. Ideally hedges should be laid when the untrimmed stems reach 2.4 -5m (8-16”) high with a stem diameter at base between 50-100mm (2-4”). Depending upon soil and the climate, with a new hedge this will usually be achieved after 8 -15 years, with previously laid hedges between 7-12 years. Hedges which are older and larger than this can be laid successfully but require more skill and time and consequently entail more expense. For some hedges it may be worth considering coppicing, this involves the felling of hedges to ankle height. This is discussed in more detail in a later section. This is the most pragmatic option where stems prove to be very brittle, or unmanageably large as in illustration 2 overleaf.

Hedges which have been maintained by trimming can usually be successfully laid although it will generally require the suspension of trimming of the hedge top for 2-5 years to allow sufficient leader shoot growth to develop. In the interim the sides can be kept trimmed if required. Older hedges whose bases have become particularly gnarled with time and or suffered damage from sheep or patch up fencing jobs may realistically only be salvageable by coppicing (Illustration 4).

Timing of operations

Hedge management is best undertaken during the plant's dormant season i.e. between mid -October and the end of March. Periods of extended frost should be avoided whilst high winds can make the cut plants unmanageable. The laying of old brittle plants and coppicing, particularly of moribund plants is best undertaken in March or even early April when the sap is rising, though consideration must then be given to the possible disturbance of nesting birds. Wherever possible work should be undertaken in the later months of the season as many birds, particularly members of the thrush family, rely heavily on hawthorn berries as a winter food resource.

The craft of hedgelaying

The following section discusses and describes the actual process of hedgelaying, it aims to provide background information to supplement the technical guidance card on this topic. It is not intended to suggest that the use of these documents alone will enable the novice to undertake hedgelaying without some form of instruction. Hedgelaying is a skilled craft particularly when it involves the laying of larger plants. Expert advice and instruction should be sought. Contacts are provided on the companion technical guidance card.

As with many crafts hedgelaying is partly a science and partly an artistic endeavour. As such there are many different views on how a hedge should be laid ‘properly’. It is not unusual to put two experienced and able hedgelayers together and get two strongly argued cases for the superior merits of one or other approach. Generally however disagreements arise on the basis of what may be described as stylistic differences with certain key elements being common and integral to all styles.

Local styles

Not all styles aim to provide an immediate barrier when laying. Variations in farming practices and requirements have led to a variety of styles evolving in different parts of the country. For example the Cumberland and some Northumberland styles traditionally involved the hedge being laid very ‘hard’ i.e. with the loss of much of the ‘body’ of the plants (Illustration 5).

Practiced in its most extreme form the Cumberland style involves stripping all the side branches off a plant, with only the main stem being laid and this being put down very low. This approach evolved with traditional crop rotations where fields were alternated between pastoral and arable usage. Hedges were laid during the arable phase allowing them time to grow up before they were required to retain stock again.
It contrasts strongly with the Midlands or 'standard', hedge traditionally a cattle hedge, where plants are laid to form a high hedge 1.35m (4' 6") as an instant barrier.

Ultimately all styles aim to create a hedge impenetrable to stock, whether in the short or long term. Central to the achievement of this is the laying over of stems from just above ground level (Illustration 6). This is a critical feature of successful hedgelaying and the commonest mistake seen in untrained or poorly trained hedgers. If stems are laid too high off the ground then it is generally impossible to fill the bottom of the hedge properly. This can provide stock with the opportunity to force their way under the hedge (Illustration 7).

In the long term failure to lay at the correct point also creates problems for the next person to lay the hedge as most of the new growth which will form the next crop of stems for laying; commonly described as 'pleachers' or 'plashers', will sprout from just below the point at which the stem is laid over. This makes it difficult for the next person to avoid repeating the mistake.

In some cases it may prove impossible to lay every plant sufficiently low. Where this is the case, care should be taken to ensure that some new growth arises from the base of the plant. This can be accomplished by cutting a nick in the stump 50-125mm (2-5") above ground (Illustration 8).

If large numbers of plants in the hedge can only be laid high it may be necessary to root lay. Instead of cutting into the plants stem the root system is exposed and partially severed to enable the hedge layer to lay the plant in the required direction (Illustration 9).

Cutting is traditionally undertaken with a ‘billhook’ or axe, most modern practitioners will supplement these tools with a chainsaw. The cut is made on the opposite side of the face to the direction of lay. This is largely determined by the site conditions and the ‘handedness’ of the hedge layer, right handed workers invariably lay to their left when possible. Where not dictated by site restrictions, direction is largely a matter of personal preference. But if the hedge is on a significant slope plants are always laid uphill.

Where there is a strong prevailing wind and no better reason for doing otherwise it is preferable to lay the plants with the wind as their natural growth form will incline them to lay over more easily in this direction.

It is important that the attachment of the pleacher to the stump is secure and that the remaining cambium layer, (Illustration 10) effectively the plumbing system of the plant, be undamaged.

The cambium and some of the sapwood must remain intact.

Stems should be laid over rather than forced. The skill of hedgelaying lies in determining the optimum depth of cut required for a given stem, this being at the point where the pleacher can be laid using little more than its own weight. Pleachers which have been forced or laid whilst still too thick will either split back on themselves up the stem or split down into the ground, both of these outcomes are considered undesirable, particularly the latter as it is believed to encourage rot in the base of the plant. (Illustration 11) Obviously pleachers which have been cut too far through run the risk of being insufficiently attached to the stump to survive.

11: Stem insufficiently flexible has split downwards when laying over has been attempted
Having laid the stem over there will be a stub remaining at the back of the pleacher, these should always be removed, being cut down to the point at which the split starts and at an angle which leads rainwater away from the split (Illustration 12). Experienced practitioners will tend to use an axe or billhook to remove the stump, beginners are advised to use a bowsaw until they gain proficiency with their tools. Large stumps are more easily removed by chainsaws.

Illustration 12: Cleaning off the stub

Removing the stump prevents material from gathering in the split thereby reducing the opportunities for rot to occur in the stool. It also ensures that any re-growth at the back of the stool will arise from the base. (Illustration 13)

Illustration 13: Stubs removed showing re-growth from the base of the stool

Angle of lay

The angle at which pleachers are laid varies from the horizontal to 45 degrees. This is largely dependent upon the style of the hedger but will also vary according to the initial condition of the hedge. Gappy hedges and particularly overgrown hedges (often the two go together) will often require pleachers to be laid to the ground in order to fill the gaps (Illustration 14).

Illustration 14: Stems laid into a gap, showing re-growth along their length, in time this will provide a new generation of pleachers allowing the filling of this section of hedge.

Effectively it is inappropriate to talk about a correct angle for pleachers to be laid. Different styles have their proponents but it is of more importance that the hedge be laid in accordance with the key principles of good practice and that it fulfils its function. From an aesthetic perspective it is preferable to have continuity in any single hedge.

Whilst there are many regional variations in hedgelaying all styles can be broadly categorised on the basis of whether the stems are laid over the stools in line with the hedge, or either, have all of the pleachers offset on one side (single brushing) or pleachers offset alternately on both sides of the hedge line (double brushing).

Laying over the stools

Most northern styles tend to lay with the line of the hedge (Illustration 15). With this approach successive stems are laid directly over the stools of previously laid plants, providing protection from stock for the new basal shoots. As the new growth emerges it grows up through the layers of material above locking these firmly in place. The end result is an exceedingly dense and robust hedge.

This method is not without its critics, laying over the stools retards new basal growth due to the shade cast by the covering layers. This means that much of the strong new growth arises from the laid stems rather than the base of the plant which can restrict the number of new pleachers available when the hedge is next to be laid. In practice this is usually not a significant problem and can be dealt with by relaying the old existing stems and then laying the new growth off these. One undeniable problem of this style is that it can be very difficult to disentangle the stems when it comes to relaying the hedge.

Single brushing

Single brushed styles are the norm in the midlands and south east of the country, being epitomised by the 'Midlands' or 'standard' hedge. Single brushing works best where the hedge has been planted in a single row. It involves laying all of the pleachers just out of line with the hedge in order to create a barrier to stock on one side with the stumps being exposed on the other (Illustration 16).
Such styles rely heavily on staking in order to retain the pleachers in place and to provide them with additional support, gained by weaving the pleachers between the stakes. They tend to have a greater finished height having evolved mainly as ‘bullock fences’. This system avoids any problems of new growth suppression by ensuring there is plenty of light available at the base of the plant to stimulate new shoots. At the same time it ensures that there is ready access to these new shoots when the time comes to relay the hedge. The main disadvantage with single brushing is that where stock are kept on both sides of a hedge the new growth from the base is exposed to damage from grazing animals and will require protection.

**Double brushing**

Double brushing is a traditional pattern seen in sheep country, particularly in Wales and to a lesser extent those English counties bordering the principality. In practice it often blurs with simply laying over the stumps. When undertaken in its purest form it involves laying pleachers out alternately on both sides of the hedge, weaving the main stem around a stake and using the bushy end of the plant to protect the stumps of previously laid pleachers. This results in a wider hedge with a denser base which in common with the northern English styles is generally laid lower than the Midlands style. Similar criticisms are made of the approach as of the laid in line style but once again it is possible to create a very dense effective barrier.

**The hedgelaying tradition in County Durham**

In County Durham there is scant evidence for a strong and distinct regional style of hedgelaying. What evidence there is, in the form of the recollections and practices of older farmers and the visual evidence of old pleachers in hedges, is derived mainly from the traditional sheep farming areas. It suggests a relatively uncomplicated approach. With hedges being laid low (20-25 degrees) and over the stumps. Stakes were employed in various patterns or simply not used with the more pliable material being intertwined to provide strength. Binding, (Illustration 17) the practice of interweaving hazel rods between stakes along the top of the hedge to prevent cattle lifting the hedge, appears to have been seldom used.

The preservation of distinct cultural landscapes is an issue of widespread and justifiable interest, hedges are an important component of our landscape heritage. Where there is a local style of management which influences their appearance in the landscape it is preferable, where practical, to continue that practice. In the case of County Durham there does not appear to be a strong case for arguing that hedgelaying should take a particular form. However it is suggested that the following points be taken into account.

Whatever style or hybrid of styles is adopted the work should be undertaken in accordance with the basic principles of good practice common to all styles. If the hedge is to contain sheep it is better to go for a low wide style in order to ensure a dense stockproof base. This often offers benefits in the form of cover to wildlife and game. Dead wood should be left in the hedge base as this is a valuable food resource for many invertebrates (Illustrate 18).

Where stock are kept on both sides of a hedge, in the absence of a ditch it is necessary to lay over the stumps or to double brush. Hedges which are only required to be stockproof on one side may be worth single brushing if the stakes are available, particularly if the hedge is likely to be laid again. Binding such hedges is unnecessary except where cattle have immediate access to the hedge and whilst not unattractive in itself is not considered particularly desirable, particularly in the dales where it is felt unlikely that it would have been a traditional practice.

Irrespective of the style employed it should be consistent and the hedge left in a well finished uniform state, stray sections of material should be woven into the hedge or trimmed off. Stakes, if used should be evenly spaced and set at the same height. The use of dead material to fill out the hedge in places is acceptable but should not form a significant component of the finished hedge.

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**Illustration 17** Binding is commonly seen on midland hedges but is not generally associated with northern styles. Hedge laid by Mike Wade

**Illustration 18** Large numbers of harmless invertebrates such as this wasp beetle (Clytus arietis) feed on dead wood, such animals are an important part of the food chain © R.S. Key
Coppicing involves cutting the plant down to ankle height, 75-125mm (3-5") off the ground (Illustration 19).

It is essential that stumps are cut no higher than this to ensure that re-growth comes from the base of the plant to allow a thick base to develop. Stumps should be cut cleanly off without ripping the bark and at an angle (20-30 degrees) to prevent water gathering on the surface. Depending upon how vigorous the plants are when coppiced they should regenerate very rapidly to provide layable stems in 6-10 years (Illustration 20).

Evidently this is a drastic form of management and ideally should only be undertaken after consultation. The survival rate can be variable and it is likely that significant replanting will be required.

Many hedgelayers do not favour coppicing hedges as they can be more difficult to lay in the future, however in some circumstances it may be the only viable option. When it is successful it shares with hedgelaying the advantage of rejuvenating the hedge and extending its life span. Successful regeneration is likely to be best achieved by undertaking the work when the sap is starting to rise in March, but before the bird nesting season.

**Aftercare of laid and coppiced hedges**

Where livestock have access to newly laid hedges they may require temporary fencing to prevent stock from browsing the new growth, the need for this will vary according to the initial state of the hedge and the style and ability of the craftsman.

If a hedge has been coppiced fencing is essential. In both cases the fence should be situated sufficiently far from the hedge line to prevent stock reaching through the wire, most grant aided schemes will specify a required distance. Where cleavers or other climbers are perceived to be smothering the hedge they should be removed.

Laid hedges can either be left to grow on until the next time they require laying or maintained by trimming. If the latter the machine operator should ensure they cut above the line of any stakes and follow the guidelines outlined in Technical Guidance Card 3. A well laid hedge managed by trimming can survive up to 50 years before starting to go thin at the base and losing its stockproof qualities. Coppiced hedges when suitably re-grown can be managed as per new hedges by laying or trimming or a combination of the two.

**Useful References**