

Mechanical hedge-laying for wildlife, Aylesbury Vale, Buckinghamshire, England

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SUMMARY

A faster and cheaper method of hedge-laying to benefit wildlife using a mechanical hedge laying technique has been developed. In comparison to traditionally laid hedges, those mechanically laid are broader at the base, thicker, taller, retain more deadwood and flower and fruit every year.

BACKGROUND

The traditional country skill of hedge-laying has seen a resurgence in recent years in the UK due in part to the success of the Countryside Stewardship Scheme. This form of hedgerow management has been practiced for centuries as a method of containing livestock within a field using a living barrier of interwoven woody hedge plants. It creates a dense tight structure which has incidental benefits for wildlife (nesting birds in particular), and is greatly preferable to the widely practised annual mechanical flailing of farmland hedges. However, hedge-laying is very expensive and time consuming, and for several years after laying, provides comparatively fewer resources for wildlife e.g. flowers, fruit and nesting habitat, compared to a large overgrown hedge. When practiced alongside roads (as is often the case because of the advertising opportunities for contractors and for aesthetic appeal) it can even be a danger to wildlife - tall hedges encourage barn owls *Tyto alba* and kestrels *Falco tinnunculus* to fly up and over roads out of the impact zone of road traffic, short traditionally laid hedges do not.

Hedgerows are possibly the single most important resource for wildlife in the wider British countryside providing food and shelter, and also performing the vital function of wildlife corridors. The best hedgerows for wildlife are species rich, tall, and broad and dense at the base mimicking the woodland edge environment which much native wildlife can exploit. Hedges of this nature provide nesting opportunities for declining ground nesting birds such as grey partridge *Perdix perdix*, and for birds that require a higher nest site such as bullfinch *Pyrrhula pyrrhula*. Broad dense hedges also protect song bird nestlings

from predators such as magpie *Pica pica* which find it much easier to rob nests constructed in sparse, annually flailed hedges.

The initial deleterious effects, and time and expense of traditional hedge-laying was of concern at Aylesbury Vale Countryside Service for several years. Fortunately a technique which overcame these problems was devised by a local farmer, John Morris. Some years previously, he had a hedge laid traditionally and was disappointed with the results. The vast bulk of the hedge had been cut out and arisings burnt in the field resulted in local nutrient enrichment and a subsequent growth of nettles *Urtica*. The hedge was thin and sparse and had lost all its' fruit. The time and costs involved was also restrictive. So he decided to see if there was an alternative and devised a method of mechanical hedge-laying, coined 'Wildlife Hedge-laying'.

ACTION

Since 200, several hedgerows in the Aylesbury Vale in southern England have been laid in the autumn using the mechanical hedge-laying technique devised and tested by a local farmer, John Morris of Long Crendon, Oxfordshire. The dominant woody species in these hedges comprise hawthorn *Crataegus monogyna* and blackthorn (sloe) *Prunus spinosa*.

The process involves cutting each main stem as one would for traditional hedge-laying, cutting as low to the ground as possible 1/2 to 2/3 of the way through to avoid snapping of the trunk. This is done with a petrol driven pruning saw which enables access to the hedge base without the need to cut away material from the sides of the hedge. It is important not

to cut too much from the side of the hedge to retain as much volume as possible.

After cutting, a telescopic handler mounted on a tractor with a special attachment made on the farm (Scott 2005) is used to gently push over the hedge (following the hedge line) in sections of a couple of metres at a time. It is then gently compressed with the telescopic handler which helps to layer and lock the hedge together, and ensure stability in the wind. There is no need for stakes and binders. The hedges were then fenced each side at least 1 m from the base of the hedge.

CONSEQUENCES

Using this mechanical laying technique, two experienced workers (John and George, the main practitioners to date) are able to lay up to 250 m of hedge a day (depending on the state of the hedge). The cost equates to hiring one man with a telescopic handler and one with a pruning saw/chainsaw for 1 day. This is significantly less expensive than an experienced hedge-layer laying a hedge in a traditional manner who would lay about 20 m per day at a cost of approximately £7.00/m.

The results of mechanical hedge-laying are maintenance or creation of a broad, thick (particularly at the base), tall hedge. The autumn berry crop is retained and the hedge flowers in the following year. After laying the following year's growth is vigorous and the hedge regenerates much more quickly than a traditionally laid hedge. This is probably due to less stress to the trees because little growth is removed, and also to the lack of competition from species such as cleavers *Galium aparine* and stinging nettle *Urtica dioica* as the mechanically laid hedges retained their shading effect and volume thus suppressing these herbaceous weeds. These species can swamp a traditionally laid hedge in the first few years after laying.

In comparison to traditionally laid hedges, those mechanically laid are much broader at the base, thicker, taller, have more deadwood for invertebrates and flower and fruit every year. Placing the fencing 1 m from the base of the hedge allowed a tussocky grassland strip to develop between the fence and hedge, which benefited additional nesting bird species and invertebrates. The natural loose 'A' shape of the hedge after laying is prolonged by the grazing action of the cattle leaning over the fence, increasing the length of time that a dense base is retained for the benefit of wildlife. If cost is a limiting factor fencing need not be installed, although this may be pertinent if an instant stock proof barrier is required.

Outlook: This technique seems to be a perfect marriage of practical farming benefit and environmental gain and has been accepted by local Countryside Stewardship advisors. Aylesbury Vale Countryside Service were so impressed with the technique that grants are now given for 'Wildlife Hedge-laying' using this mechanical hedge-laying method and it is actively promoted. It is hoped that more farmers adopt this practice of hedgerow management.

ACKNOWLEDGEMENTS

Aylesbury Vale Countryside Service staff is grateful to John and George for demonstrating this technique

REFERENCES

Scott C. (2005) Wildlife Hedgelaying in Aylesbury Vale, Buckinghamshire. *British Wildlife*, 16, 172-173.