



Rejuvenation of hedgerows

Why rejuvenate hedges?

- Less than half of UK hedges are in good condition (with few vertical gaps, a minimum height of 1m and width of 1.5m) partly due to over-frequent trimming with mechanised flails.
- Traditional rejuvenation methods such as hedge-laying and coppicing reduce gaps and stimulate growth from the base of hedgerows.
- Wildlife such as perennial plants, small mammals, farmland birds and some invertebrates benefit from dense hedges with few gaps.
- We developed and tested cheaper, modern alternative rejuvenation methods and traditional methods on five farms across southern England. Here are our results:

	Traditional Midland hedge-laying	Conservation hedging	Wildlife hedging	Coppicing	Circular saw
Cost (per 100m)	£1241	£664	£413	£225 (exc. fencing) £645 (inc. fencing)	£166
Timing (minutes per m)	33:08	12:08	0:53	1:33	1:57
Height (m)	1.50	1.40	2.05	0.05	1.90
Width (m)	1.05	1.55	3.40	0.05	1.80

Average cost (£ per 100m of hedge including clearing up brush), timing (minutes per metre), height & width (in metres) of rejuvenated hedges across five sites in 2010.

Traditional Midland style hedge-laying

- Main stems were partially severed at the base, laid over and woven between stakes to form a stock proof barrier. Up to 50% of the woody volume (side branches) was cut and removed. Remaining branches were laid towards one side of the hedge.
- Hedge condition was improved by reducing gap size and increasing hedge density.
- Growth of new stems was stimulated from the cut stumps in the hedge bottom, as well as growth of the laid main stems.
- Berry provision was reduced compared with hedges that were not rejuvenated, but only over a short time scale (2-3 years following rejuvenation).



Conservation hedging

- Stems were cut at the base as for traditional Midland style hedge-laying. Less woody volume was removed. Remaining stems and branches were laid along both sides of the hedge. Stakes were used sparingly and no top binding was used.
- Three years after rejuvenation, hedge structure and rates of woody re-growth were as good as traditional hedge-laying in improving hedge condition.
- Berry provision for overwintering wildlife was slightly better than for traditional hedge-laying immediately following rejuvenation.



Photo: Nigel Adams, HedgeLink



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Wildlife hedging

- Each stem was partially cut with a chainsaw and a mechanical digger used to push the hedge over along its length. No woody volume was removed, and some stems were entirely severed when the hedge was pushed over.
- The average width was more than twice that of the traditional and conservation laid hedges.
- Three years after rejuvenation, wildlife hedging resulted in slightly less vigorous woody re-growth than traditional hedge-laying, but a greater density of woody material with smaller gaps in the hedge base.
- Immediately after rejuvenation there was more dead wood in the hedge (up to 40%) due to the severed stems.
- Berry provision was as good as from hedges that were not rejuvenated.



Re-shaping with a circular saw

- The hedge was re-shaped into a tall, box like shape by cutting the sides and top using a tractor mounted circular saw. The branches were cut cleanly, avoiding the damage caused by a flail.
- Resulted in vigorous growth in the hedgerow canopy, but did not stimulate basal woody growth or reduce gaps at the base.
- Three years after rejuvenation, berry provision was as good as from hedges that were not rejuvenated.

Coppicing

- Hedge stems were cut close to ground level with a chain saw. The entire volume of the hedge was removed apart from 5cm high stools.
- Resulted in vigorous growth of woody stems and a dense woody structure at the base of the hedge three years after coppicing.
- Very few berries were produced even four years after coppicing.
- Fencing was needed at two of the five sites to prevent deer browsing the exposed re-growth from cut stools.



Photos: Front - Jo Staley, CEH.
Back - as credited, others by Jo Staley, CEH