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Source: Staley, J.T., Amy, S.R., Adams, N.P., Chapman, R.E., Peyton, J.M. & Pywell, R.F. (2015). Re-structuring hedges: Rejuvenation management can improve the long-term quality of hedgerow habitats for wildlife in the UK. *Biological Conservation*. 186: 187–196. DOI:10.1016/j.biocon.2015

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.03.002.

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To cite this article/service: "Science for Environment Policy": European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.

Science for Environment Policy

Cheaper alternatives to traditional hedge laying can still reap conservation benefits

Hedgerows are vital habitats in intensively managed landscapes, providing food and shelter for wildlife. How hedgerows are managed affects their structure, with dense, woody hedges being the most valuable for conservation. A recent study has found an alternative method of hedging that is cheaper than traditional hedge laying but offers the same benefits of dense new growth and berry provision for wildlife. Use of this method could double the length of hedgerows being rejuvenated in England, the authors estimate.

In the UK and across north-western Europe, the condition of hedgerows is deteriorating. This is because the high cost of traditional maintenance and a shortage of skilled labour drives landowners to trim them using mechanical flail cutters or neglect them entirely. As a result, cost-effective methods to restore hedgerows are badly needed. This study compared five different rejuvenation regimes on hedgerows growing at five sites in southern England.

The five methods were: (1) Traditional hedge laying where half the woody mass is removed, and main stems are cut at the base, bent over, and then woven through the hedge. Remaining branches are then laid along one side of the hedge and held in place with stakes. (2) Conservation hedging, which is similar to traditional hedge laying except less material is removed. (3) Wildlife hedging where main stems are cut at their base with a chainsaw and pushed over with a mechanical digger. No woody material is removed. (4) Using a circular saw to trim the hedge into a tall, box shape every 8–10 years. (5) Coppicing, by cutting the hedge down to the ground with a chain saw.

In 2010, the researchers contracted commercial specialists to rejuvenate randomly selected, 24 m sections of hedgerows, using one of the five methods. In total, each rejuvenation method was repeated 12 times. Each winter from 2011 to 2013, they checked for regrowth on the laid material at the bottom of the hedges as well as for recent growth of woody twigs in the rest of the hedge. In all hedgerows, the main woody species was the hawthorn (*Crataegus monogyna*).

The researchers found that by the end of the three years, traditional hedge laying, conservation hedging, wildlife hedging and coppicing all grew substantially greater amounts of new woody material at the base of the hedges and had fewer gaps compared with hedges that had been left untouched.

Based on the contractors' charges, hedge laying costs approximately twice that of conservation hedging and three times that of wildlife hedging, while using a circular saw was the cheapest option. Coppicing cost more than rejuvenating with a circular saw but less than the other three methods.

Hedgerow berries are an important food source for wildlife, so the researchers weighed hawthorn berries from each hedgerow section every autumn. After three years, all methods except coppicing produced similar weights of berries to unmanaged hedges, suggesting coppiced hedges take longer to produce as many berries.

Coppicing produced the strongest regrowth at the base and canopy after rejuvenation, although initially there may be less shelter for insects and small mammals than in hedges managed by one of the laid methods. As coppicing is cheaper than the laid methods, researchers suggest coppicing could be used in moderation.

Since there was little difference in the density of woody material in hedgerows managed by the three laid methods after three years, the researchers suggest that conservation hedging could be a cheaper alternative to managing hedgerows by traditional methods. They estimate that the length of hedgerows being rejuvenated in England could double under this approach.



