



The economics of harvesting hedges for bioenergy

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Across much of Europe, hedgerows are an important part of our joint cultural heritage, covering a total of 1.78 million hectares in the EU (den Herder et al, 2016). However, many hedges are in decline due to over- and under-management. Hedgerow management activities for local energy or heat production as a way of supporting the rejuvenation of old hedges can restore not only their economic role but their value to the wider landscape.

To be attractive to farmers, the management of hedges for bioenergy must be profitable.

A cost:benefit analyses with the FarmSAFE model used data from hedgerow coppicing trials carried out on two farms in England.

Costs associated with standard hedgerow management by trimming with a flail every two years were compared with hedgerows managed on a 15 year coppice rotation, using different scales of machinery (small = chainsaw; medium = tree shears; large = Bracke felling head), for a 60 year period.

Income was generated from woodchip sales (£7.59/m³) and government grants for sensitive hedge management (£16/100m) and coppicing (£400/100m).

The analyses showed that standard trimming of hedges with a flail every two years leads to a loss of £177 per 100m. Using a chainsaw for harvesting results in a similar loss of £176/100m. In contrast, managing by coppicing to produce woodfuel using medium and large scaled machinery was shown to be profitable, (tree shears = £357/100m; Bracke felling head = £219/100m). This demonstrates that it is possible to make hedgerows a profitable part of the farm business.

References:

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