

Leek Wootton and Guys Cliffe Parish Hedgerows Study



“The hedges - yes, the hedges, the very synonym of Merry England - are yet there, and long may they remain. Without hedges England would not be England. Hedges, thick and high, and full of flowers, birds, and living creatures, of shade and flecks of sunshine dancing up and down the bark of the trees - I love their very thorns.” **Jefferies Richard 1848-1887**, English nature writer.

Purpose and benefits of the study

- To provide an up to date ‘snapshot’ of the condition and number of native field hedgerows in LW and GC Parish.
- To assess the rate at which hedgerows are being lost in the Parish.
- To increase awareness of these local wildlife habitats.
- To promote discussions about their value and future.
- To provide a basis for future studies.

The Importance and Value of Hedgerows

VALUE TO WILDLIFE

They provide food, shelter, breeding sites, habitat and vital wildlife corridors for a huge range of animals. Sustaining their populations and very existence.

Some species are very dependant on hedges and have seen a severe decline in recent decades due primarily to a loss of hedge habitat. Four examples of our hedgerow dependant species are given below.



The UK yellowhammer population has declined by 61% since 1967. It is a Red List species of high conservation concern.



It is estimated that there were 36 million hedgehogs in the 1950's. It is now thought there are fewer than 1 million.



There has been an estimated 70% decrease in dormice numbers since 2000. It is now considered endangered.



There has been an estimated 49% decrease in numbers of the brown hair-streak butterfly since the 1970's.

10 REASONS WHY HEDGES ARE VALUABLE TO PEOPLE

1. Hedges store carbon in the biomass of their vegetation but also in the soil beneath thus helping combat climate change. Recent research has found that soil under hedges stored on average 40 tonnes more carbon per hectare than grassland. (**Appendix 5 for reference**)
2. Hedges can help reduce the risk of flooding by absorbing and slowing the flow of water.
3. Hedges can help reduce water pollution by acting as a physical barrier and increasing infiltration into the ground while the vegetation itself recycles nutrients.
4. Hedges help to improve air quality and reducing noise pollution. They absorb pollution particles and can be especially important along roadsides for this reason.
5. They can act as natural living green screens in areas of development.



As illustrated here-
in two photographs
taken in
Kenilworth.



6. Hedges prevent loss of soil from fields, either through reducing wind erosion or water-borne soil run-off.
7. Hedges help with crop pest control by providing winter refuges for predators of crop pests.
8. Hedges provide shelter, food and flight lines for crop pollinators such as bees.
9. Hedgerows provide shelter for livestock from wind, and shade from the sun, thus improving their health.



10. Hedges are part of our culture and heritage, and tell the story of the countryside and its traditions , for example: hedge laying, blackberry jam and sloe gin making.



Hedges with their greenery, blossom, berries and bird song improve our wellbeing and add richness to our lives and help us feel better.

How the survey was carried out

When it was carried out

The project was begun in 2022 and continued into early 2025.

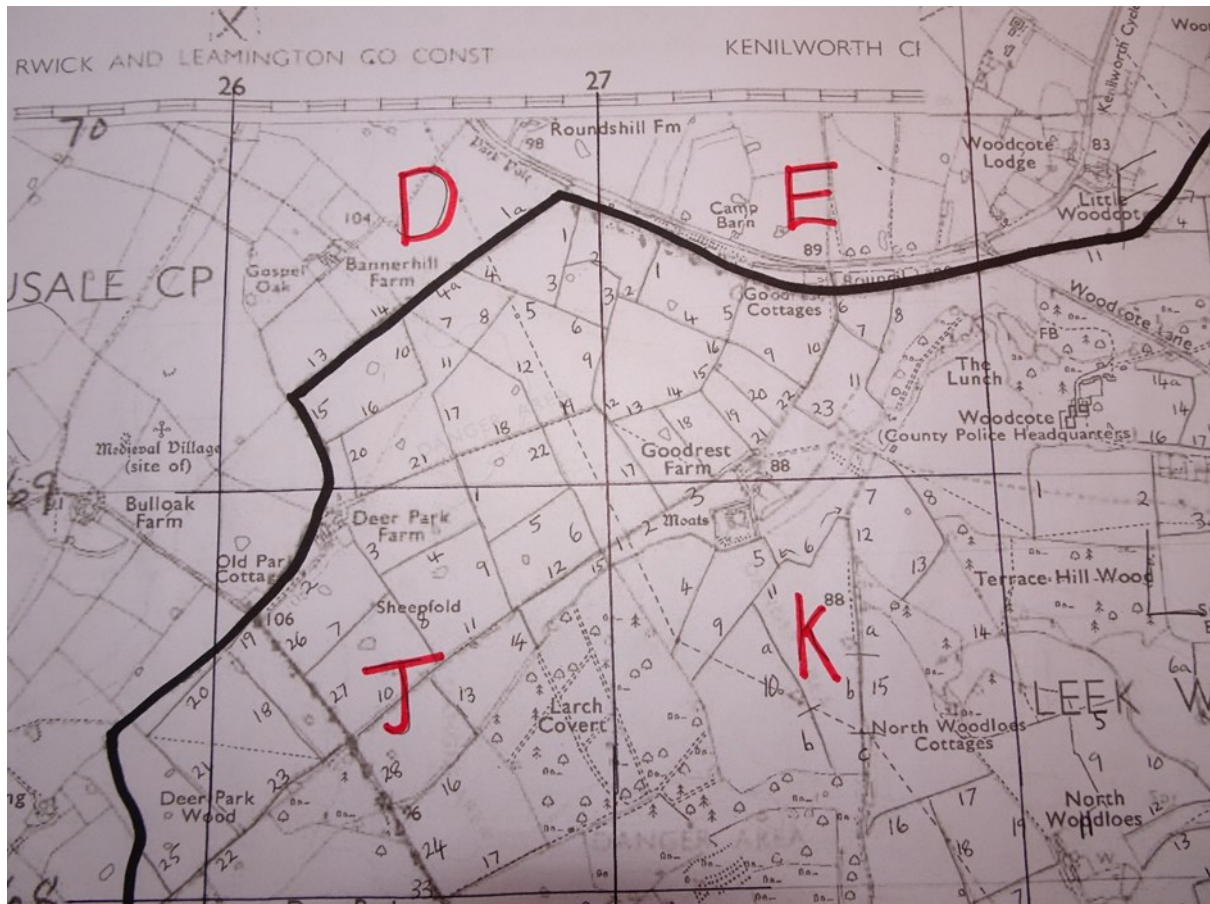
Locating the hedgerows

The map used to identify potential hedgerows in the Parish was a 1987 Ordnance Survey Pathfinder map number 976, for the area Warwick and Leamington Spa. It had been compiled from large scale surveys carried out between 1951 and 1972. Only significant changes and major roads had been added between 1972 and 1987.

Identifying individual hedges

The Parish boundary was drawn onto the map and the grid squares were labelled alphabetically. See **Appendix 1** for image showing all the Parish.

Within each grid all field boundaries on the map were numbered. All field boundaries on the map were considered as potential hedgerows until verified by in situ survey or google earth information.



The information recorded for each hedge

An important factor in choosing how the hedges were to be surveyed and recorded was time. It was felt more advantageous to include as many hedges as possible rather than complete a detailed examination of plant species as recommended by the standard hedgerow surveys. Bearing in mind the goal was a snapshot and record of the hedges condition, reflecting its basic health and value to wildlife, the following five pieces of information were deemed the most useful to record for each hedge surveyed.

Appendix 2 lists the environmental bodies that provide information on hedge surveys and were used as a source of information for this survey and report.

ONE -Category: is it a hedge?

- 0 – Removed/non existent
- 1 – Hedge
- 2 – Hedge and trees
- 3 – Line of trees
- 4 – Linear scrub
- 5 – Defunct hedge (50% or more of hedge was gaps)

TWO - Percentage of gaps as a total of the whole hedge

THREE - Number of gaps greater than 5m

FOUR - Structure and management

- A – Trimmed and dense
- B – Intensively managed, flailed, not dense
- C – Untrimmed, mature woody shrubs, overgrown, line of trees
- D – Tall leggy, lack of vegetation near the ground
- E – Untrimmed, with outgrowths, nettle, bracken, bramble dominate
- F – Recently coppiced (within last 5 years)
- G – Recently laid
- H - Recently planted

FIVE - Number of mature trees in the hedge

Identified oak and ash were counted and other tree numbers noted.

Limitations

Most hedges could be observed close up using roads, lanes, footpaths and bridleways. Binoculars were used in some cases where the hedge was at a distance. There were a number of landowners who kindly allowed me to walk around their fields. In this way I was able to survey 73% of the potential hedges identified on the OS Map.

Carrying out the survey at different times of the year and sometimes at a distance meant it was not always possible to identify an oak or an ash. In which case these trees would not have been counted.

After looking for evidence of a hedge, for example, the odd mature tree standing in a field, or faint lines on google earth, if there was still uncertainty as to whether a hedge ever existed or not it was not counted.

Summary of Survey Results

Hedges that are Field boundaries

Total number of hedges on OS Map : 349

Number of hedges surveyed: 257 (73%)

Results below for hedges surveyed, number and %:

	Number of hedges	As a % of those surveyed
Hedges removed	74	29
Defunct hedges	17	7
Hedges in poor condition	49	19
Tall and untrimmed hedges	51	20
Hedges in good/okay condition	63	24
Recently coppiced hedge	0	0
Recently laid hedges	3	1
Recently planted hedges	0	0

*See **Appendix 3** for the more detailed results of individual grid squares that make up the Parish.*

Removed and Defunct hedges made up a total of 36% of those surveyed.



Removed hedges : 29%



Defunct hedges (over 50% absent) : 7%

**Hedges in poor condition due primarily to severe
flailing and cutting accounted for
19% of those surveyed**



**Tall untrimmed hedges and lines of trees
accounted for 20% of those surveyed**



**Hedges in okay or good condition
accounted for 24% of those surveyed**



Rejuvenated Hedges

Techniques that improve long term survival and condition of a hedge



**Hedges recently laid
1% of those surveyed**

Hedges recently coppiced (A) or planted (B)

Non were identified in the survey.

A



B



Summary of Survey Results

Hedges that border Roads and Lanes

Name of road or lane	Removed	Defunct	A- Good	B/D- Poor	C- Overgrown
					Line of trees
WARWICK ROAD		1	3	1	2
COVENTRY RD B4115	1		2	2	2
HILL WOOTTON RD		1	6	11	2
WOODCOTE LANE			2		2
WEDGNOCK LANE			14	1	1
HILL WOOTTON LANE		2			
Total number of hedges: 56					
Number in each category	1	4	27	15	9
As a % of total	2	7	48	27	16

Name of Road or Lane	No. of oaks in hedgerow	Number of Spinney/woodlands bordering the road
WARWICK ROAD		3
COVENTRY RD B4115	5	6
HILL WOOTTON RD	22	1
WOODCOTE LANE	5	2
WEDGNOCK LANE	27	2
HILL WOOTTON LANE	Hedge defunct on both sides.	
TOTAL	59	14

See **Appendix 1** for location of roads and lanes.

CONCLUSIONS

Hedges that are field boundaries

Assuming that the OS map used, help to identify the existence of hedgerows as they were 50 years ago, ie in 1972, the following may be deduced.

Removed or defunct

In less than one life time (50 years) there has been the loss of a third of our Parish hedgerows. Sadly this is not just confined to our Parish. A study in 2001 identified that 36% of hedges in the Warwickshire area had been removed between 1950 and 2000 (Julie Nixon, Warwickshire Wildlife Trust).

Poor

20% are in poor condition, and without the help of a rejuvenation plan will not survive for much longer. Removed ,defunct and poor hedges together make up 56% of the total surveyed.

Good (24%) and tall/untrimmed (20%)

If the hedges categorised as presently good or untrimmed, both of which have a potentially good wildlife value, are combined this is 44% of our original Parish hedges. These will have to be carefully managed if they are not to become poor in the next decades.

DEFRA's own estimates are that only 22% of UK hedgerows are in favourable condition (DEFRA 2007). Again a result reflected in the Parish.

Rejuvenated

Only 1% of all hedges surveyed showed evidence of recent active management (within last five years) to improve the hedgerows long term survival and condition. These were hedges that had been laid on Goodrest Farm.

Notable grid squares

Looking at the overall pattern of field hedges in the Parish. See ***Appendix 3 for individual grid square results.***

1. Grid squares D and E in the north west of the Parish, covering Goodrest and Deer Park Farms have the highest percentage of good hedgerows.
2. Grid square H and N, covering Hill Wootton have the highest percentage of defunct and poor hedgerows.
3. Grid square L, the golf course, has the highest percentage of removed hedgerows.

Hedgerow Trees

A total number of 219 mature English oak trees were counted in the Parish hedges. This will be an underestimate as if there was any uncertainty of the species (due to distance and or time of year) they were not counted. For the same reasons the figure of 64 mature ash trees will also be an underestimate.

It seems likely that as English elm would have been just as abundant as the oak ,but was decimated in the 1970's ,hundreds of elm have been lost over the last 50 years.

There was little evidence in the Parish of young oaks growing above the height of the hedges. Nurturing these young oaks is necessary if we are to sustain a population of mature hedge oaks into the future. The English oak supports more wildlife (2,300 different species) than any other native tree species in the UK.

Hedges that border our roads and lanes

The hedges that border our roads and lanes are generally more intact and in better condition than the field hedges. Fewer have been removed and there is a higher percentage that are in a good condition.

There are a particularly high number of mature oak trees on Hill Wootton Road (22) and Wedgnoek Lane (27).

There is a notable number (14) of small spinneys or woods bordering the roads. In some cases these spinneys are of some considerable length, for example on Woodcote Lane. Although the hedge was defunct on Hill Wootton Lane it did possess a wide variety of mature trees, at least 12 different species. Indicative of a once very old hedgerow.



One of seven veteran oaks in the south side hedge of Hill Wootton Road, leading down to the River Avon, came down in the storms of December 2024. Its girth indicated that it was at least 163 years old. The remaining six oak trees, in the same hedge, are of similar age. A reminder for the need to plant and nurture oak saplings in hedges if we are to maintain our present number of mature oak trees into the future.

Looking to the Future

“An awful lot of England is slowly eroding, in ways that I find really distressing, and an awful lot of it is the hedgerows....We’re reaching the point where a lot of the English countryside looks just like Iowa– just kind of open space”. Bill Bryson

Do hedgerows have any value for wildlife or people? **YES!**

Should we be concerned for our Parish hedgerows and their future? **YES!**

What measures may be taken to ensure their future survival?

Recommendations:

- Identify hedgerows that provide important wildlife corridors around the Parish, particularly those that connect its woodlands and spinneys.
- Discuss with and support landowners in maintaining these corridors.
- Identify and protect young oak saplings in hedges to allow natural regeneration.
- Fill gaps in hedgerows with new hedge species or trees.
- Encourage Parish members and landowners to plant native hedgerows.
- Ensure that any local development biodiversity offsetting is achieved within the Parish. For example, in the maintenance and/or replanting of hedges.

There are many good sources of information that supply advice on managing hedgerows and improving their condition and wildlife value . See **Appendix 4**



Blackthorn in full bloom on the Warwick road near the Saxon Mill

Survey and report completed by Teresa Castelino, April 2025.

With thanks to Eve Fleming , Joy Maisey and Geoff Davis for their editing help, comments and support.

Please direct any comments to environment@leekwootton.org.uk

Appendix 1

The extent of LW and GC Parish with roads and lanes surveyed



Key:

Warwick Road		red
Coventry Road B4115		white...
Hill Wootton Road		black
Woodcote Lane		orange
Wedgnock Lane		blue
Hill Wootton Lane		purple

Appendix 2

The following bodies supply hedgerow survey forms and were referred to for the purposes of this study.

PTES (People's Trust for Endangered Species)

Dunsmore Living Landscape

DEFRA (Government Department for Environment, Food, and Rural affairs)

HedgeLink

Appendix 3

Summary of results for each grid square on the map.

	No. of hedges in grid	No. surveyed								
Category			0	5	1 and 2		3 and 4			
Structure					A	B and D	C	E	G	F and H
Condition			Removed	Defunct	Good	Poor	Tall	Poor	Laid	Coppiced
										New
Grid Square										
A	4	4	2		2					
B	3	2	1		1					
D	25	24	2		13	1	8			
E	26	16	1		10		2		3	
F	12	8	1		3		4			
G	20	15	10	1	1	2	1			
H	12	11	4	2		4	1			
J	21	18	2	1	8	4	3			
K	20	16	6		6		2	2		
L	20	18	14	1			3			
M	15	9	1	1	3	3	1			
N	48	36	2	9	1	13	7	4		
O	7	1	0				1			
P	29	17	6	2	4	5				
Q	22	9	3		1		1	4		
R	26	19	6			3	10			
W	39	32	12		9	3	7	1		
TOTAL	349	255	73	17	62	38	51	11	3	0
% of total		73								
% of surveyed			29	7	24	15	20	4	1	

Appendix 4

A list of some of the bodies that supply information about hedgerows including management for wildlife

1. Nature Friendly Farming Network
2. Peoples Trust for Endangered Species
3. Farm Wildlife
4. Farmers Weekly
5. Agricology
6. Hedgelink
7. Campaign to protect Rural England
8. The Tree Council
9. Defra

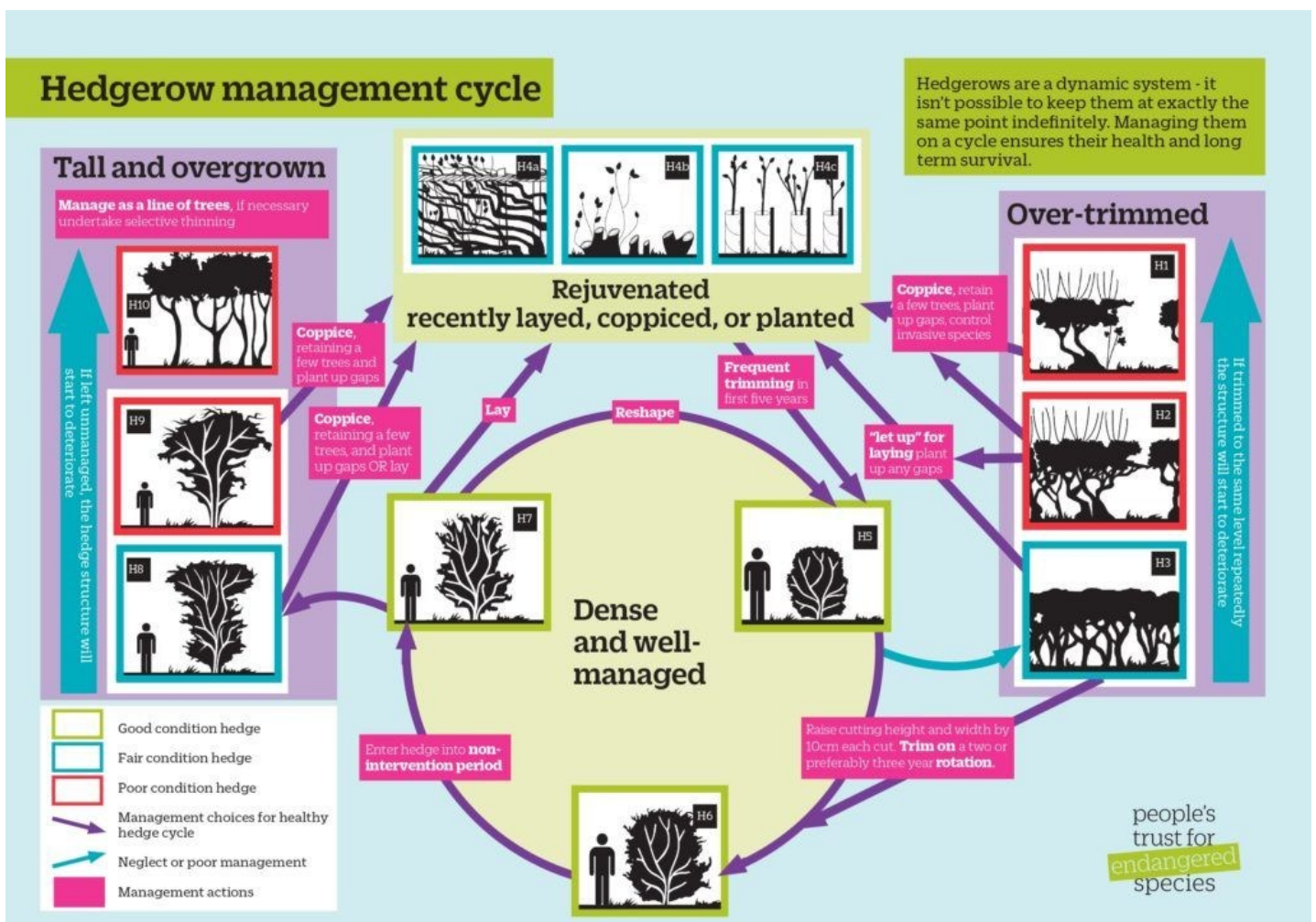
1. Nature Friendly Farming Network

An article entitled Nature friendly hedgerow management.
Sample quote from the article entitled A Bit at A Time:

"Hedgerows benefit from a rotational schedule where they are cut once every three years. This break in management allows enough time for hedgerows to recover, creating a dense structure which benefits biodiversity. A farm could be blocked into thirds so that a portion of the hedge network is cut yearly instead of all hedgerows once a year. This helps reduce fuel and labour costs while ensuring a diverse network of hedgerows across the farm".

2. Peoples Trust for endangered species

Their section 'Top Tips for managing hedgerows' help identify different types of hedgerows and techniques for their rejuvenation and management.



3. Farm Wildlife

Advice on helping wildlife on the farm including information about hedge management for example:

Restoring gappy hedges

Planting up any gaps is best undertaken using locally-sourced native hedge plants in early winter, when the ground is warm and moisture is available.

If existing hedgerows lack a thick base, combine planting with coppicing to give the new plants minimum competition. Before planting, the ground should be free of vegetation (use a suitable herbicide if necessary).

It may be necessary to use plastic tubes, spirals or quills to protect young plants from grazing rabbits or deer (removing the cuttings if possible).

4. Farmers Weekly

A link to an article on hedgerow management:

<https://www.fwi.co.uk/arable/how-to-establish-manage-and-rejuvenate-hedgerows>

5. Agricology

Agricology is an independent knowledge platform supporting all farmers and growers to transition to more sustainable and resilient farming systems. Agricology have many resources and list leaflets for example the two below, and guidelines from other bodies.

Rejuvenation of hedgerows

Keeping hedges in good condition will benefit your farm and wildlife. Some ways in which you can do this have been studied by the Centre for Ecology & Hydrology and are described in this leaflet. It gives an overview of results after testing five methods of rejuvenating hedges on five English farms.

Hedge fund: investing in hedgerows for climate, nature and the economy

This research, commissioned by CPRE, the countryside charity, and undertaken independently by the Organic Research Centre, provides an evidence-based analysis of the environmental and economic benefits of hedgerows.

6. Hedgelink

Hedgelink– a partnership that brings everyone interested in hedgerows together, to share knowledge and ideas, to encourage and inspire, and to work with farmers and other land managers to conserve and enhance our hedgerow heritage.

They have a comprehensive Hedge Hub Resources section.

7. Campaign to protect Rural England

The CPRE is a countryside charity. Their vision is a thriving, beautiful countryside for everyone.

Link to information on hedges below:

<https://www.cpre.org.uk/resources/a-little-rough-guide-around-the-hedges/>

8. The Tree Council

Working together for the love of trees. *The Tree Council* brings everyone together with a shared mission to care for trees and our planet's future.

The tree council has some hedgerow learning guides .

Here is a short quote from one of their guides:

“There are so many young trees in hedges that are suitable to grow into standard trees through suitable management. For example, promising trees can be tagged to be easily seen by farmers or contractors so they are not flailed when the hedge is trimmed. Suitable trees can also be retained as hedge trees when hedges are laid or coppiced”.

9. Defra

Department for Environment, Food and Rural Affairs.

The go to government body for all things legal and financial, for example:

Countryside hedgerow protection

Hedgerow management rules: cutting and trimming

Hedgerow management rules: buffer strips

Planting new hedges

Hedgerow laying

Appendix 5

Reference to carbon capture in hedgerows

Grace Wood

BBC News, Yorkshire

Published

9 February 2025

Hedgerows increase soil carbon storage by almost half compared to grassland, according to research from the University of Leeds.

The team of scientists analysed soil samples from farms in Yorkshire, Cumbria and West Sussex, to find out how carbon storage under hedgerows compared to that found in adjacent grass fields.

The research found that soil under hedges stored on average 40 tonnes more carbon per hectare than grassland.

Dr Sofia Biffi, a research fellow in agricultural ecosystems, said the results showed hedgerows could have a positive impact on soil health and soil carbon storage.

"In the past few years, we have witnessed how farmers are engaging with hedge planting. They can see the difference that hedges make to the biodiversity on their farms," she said.

"They see more birds, bats and pollinators, and they enjoy their flowers, wood and shade. And now they can also know they are playing their part in storing more carbon in the soil."

The results were published in the journal *Agriculture, Ecosystems & Environment*.

