

# What hedges do for us

## The ecosystem services they deliver

Type of service	Specific service	Details
A. Wildlife services (biodiversity)	1. Food, breeding sites and shelter	Hedgerows are the most widespread semi-natural habitat in the UK and are critical to the existence of numerous plants and animals. They are particularly important within areas of intensive farming, and for the survival of widespread yet declining species which are dependent on woodland edge, scrub or rough grassland habitats.
	2. Movement and dispersal through landscape	Hedgerows facilitate movement through the landscape for a wide range of organisms. They are particularly important for flying insects like butterflies which need warm sheltered conditions to be able to gain, and retain, the heat necessary to fly.
	3. BAP and rare species	130 priority Biodiversity Action Plan species are closely associated with hedgerows, 11% of all such species. Although very few are wholly dependent on hedgerows, the loss of hedgerows or a decline in their quality will have a significant adverse impact on their populations.
B. Regulatory services	4. Water quality / purification	Hedgerows reduce the amount of polluting fertilisers, pesticides and sediment that reach watercourses through acting as a physical barrier, through increasing infiltration into the ground, and through nutrients being recycled by the trees, shrubs and other plants.
	5. Climate regulation	Hedgerows may play a significant role in reducing the rate of climate change, through carbon storage, and through the provision of firewood, a renewable fuel.
	6. Water regulation	Hedgerows regulate water supply for crops in three ways: 1. They decrease wind speed over the ground surface, so reducing water loss through evaporation in areas prone to drought. 2. They can help to store water for later use for slow release down slope during dry periods. This effect is greatest in soils rich in clay or organic matter. 3. Because of their deep roots, hedgerows remove water faster from the soil than crops during periods of excessive rainfall, through increased evapotranspiration.
	7. Flood control	Hedges with banks regulate the rate of flow of water within catchments, reducing peak flows and increasing minimum flows. They are thus effective at reducing the risk of flooding and are increasingly created for this purpose.
	8. Erosion regulation	Hedgerows prevent loss of soil from fields, either through reducing wind erosion or through acting as a barrier to water-borne run-off. This is particularly so in arable areas, both where the land is flat and prone to wind-blow, and in hilly areas where loss of soil following heavy rain can be a major problem.
	9. Pest control	Hedgerows are important winter refuges for predators of crop pests, and are of proven economic importance in this respect.
	10. Pollination	The shrubs, trees and herbs of hedgerows provide shelter and flight lines for crop pollinators such as bumblebees, and nectar and pollen sources essential for pollinator survival when crops are not in flower.
	11. Boundaries and barriers	Hedges both mark land ownership boundaries and facilitate livestock management.

	12. Protection of livestock	Hedgerows provide shelter for livestock from wind, and shade from the sun. This importance of this role is likely to increase with climate change.
	13. Urban air quality	In urban areas hedges help capture particulates, and also help moderate the urban heat island effect.
C. Cultural services	14. Recreation (field sports)	Hedgerows provide cover and breeding sites for quarry species such as pheasants and partridges, and facilitate hunting.
	15. Cultural heritage	Hedgerows, through their rich and often intricate patterns, tell the story of the countryside and farming traditions over many centuries. Their loss removes much of the cultural and historical patina from the landscape, leaving it a blank canvass. The traditional craft of hedge laying, with its distinctive regional styles, is an important part of our rural heritage.
	16. Historic heritage	Two thirds of England has had a continuously hedged landscape for six hundred years or more. Some hedge systems date back to prehistoric times, and most were well established by 1400 AD. It is only in the Midlands and part of the North-East that the majority of hedgerows were planted under the Enclosure Acts between 1750 and 1850.
	17. Education	Hedgerows provide learning opportunities across a wide range of subjects and can serve as outdoor classrooms.
	18. Aesthetics and sense of place (landscape character)	Hedgerows are a defining feature of the landscape, creating the characteristic structure and pattern of the landscape. There are many local variations, with distinctive ecological and cultural associations. Aesthetically, hedgerows provide pattern, local grain and texture in the landscape.
	19. Screening	Hedgerows can shield unsightly development and protect privacy.
Provisioning services	20. Food	Hedgerows have traditionally been the source of some iconic British foods and drinks, such as blackberry jam and sloe gin.
	21. Fuel	Hedgerows can be sustainably managed to provide heating fuel which is not only from a renewable source but which is also cheaper than fuel oil or gas.

Robert Wolton, Locks Park Farm

[robertwolton@yahoo.co.uk](mailto:robertwolton@yahoo.co.uk)

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