

HEDGE SHAPE AND SHELTER

Why have taller hedges?

Hedges and shelterbelts can provide useful shelter to crops or stock from buffeting or wind chill for approximately 3 times their height in distance upwind, and up to 12 times their height in distance downwind.

For example, downwind of a hedge of 1.5m (5ft) in height the shelter value for cattle extends 1.9m (6ft) into the field, and 9.1m (30ft) for sheep. However, for many hedges which are less than 1.5m high the shelter value is reduced accordingly, and they provide little or no shelter value out in the adjacent field.

Hedges that are maintained at 2m (6ft) or higher are therefore much more valuable for shelter, but they also have greater benefits for wildlife. This is partly because of the greater volume of the hedge which is particularly important for nesting sites.

The ideal density for such a hedge or shelterbelt is achieved with about 40% permeability to the wind. Some permeability is important in order to reduce wind eddies and currents. The reduced wind speed also leads to increased soil temperature and moisture content. If the hedge or shelterbelt has 40% permeability, you should be

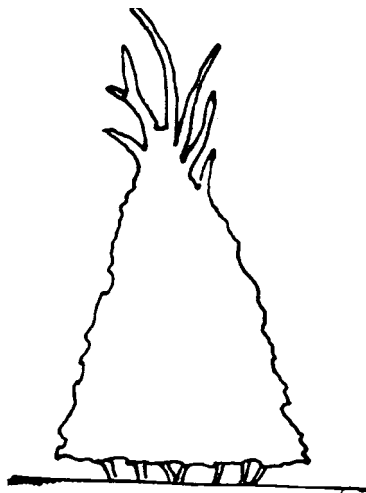
able to make out stock movements by looking through it, without being able to make out individual animals. With appropriate management, a good hedge can be sufficiently dense even in the absence of leaves in winter.

Hedge shapes

Ideally, not all the hedges on a farm should be managed the same way. Each shape has its merits and its drawbacks, and so to get the best out of them, a variety of management regimes should be adopted. Generally speaking, the overall volume or size of the hedge is more important than the shape.

A-shaped, or topped A-shape

Advantages:



good for providing shelter and stock proofing, and has good all round wildlife value.

- the sloping sides reduce self-shading and are said to shed snow more readily. This shape may also be more magpie-proof than a flat topped hedge, and if the top is left ragged in places it provides songposts for a variety of birds.

- can allow saplings to develop as timber trees if the top is not trimmed.

Disadvantages:

- can shade out the valuable grass base used by ground nesting birds and many insects if the grass base is narrow.

- will take more than 3 passes to trim if grown to a functional size.

- the shape is easier to develop with a wide base if a suckering shrub such as blackthorn is present

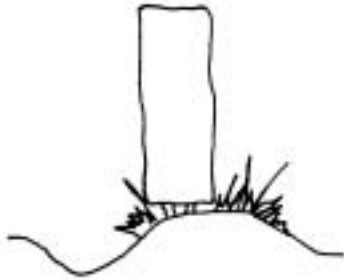
Appropriate sites:

- possibly best suited for flat field sites or areas where a wide field margin is still available.

Parallel sided

Advantages:

- can provide good shelter and nesting opportunities depending on the dimensions to which it is trimmed.
- does not shade out grass used by ground nesting birds, but for maximum cover for such birds the base should also be fenced against grazing stock to allow a tussocky grass mat to develop.



Disadvantages:

- less stockproof at the base than A-shaped hedge above unless periodically laid.

Appropriate sites:

- good option for hedges on banks or alongside ditches.

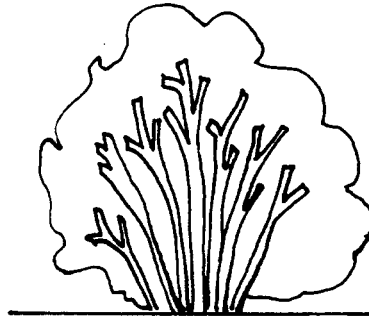
Free growth

Advantages:

- provides a good food supply for birds and insects as older flowering shoots are not trimmed off.
- can provide good shelter, although shading of adjacent

crops makes this type unsuitable for some sites. The shade may be valuable to stock.

- can produce fuel, wood and rails.
- favoured by birds more commonly associated with woodlands.



- can be maintained by coppicing on an 8-20 year rotation but regenerating shoots need protection from stock and possibly rabbit grazing.

Disadvantages:

- Not generally as stock proof as A-shaped or free growing hedges.

Appropriate sites:

- Particularly suitable in arable situations for North-South aligned hedges or as part of a hedge regeneration policy.

Further Information

For details of your local FWAG Group, please contact FWAG at the National Agricultural Centre, Stoneleigh, Kenilworth, Warwicks CV8 2RX. Tel: 024 7669 6699.

We would like to acknowledge The Hedgerow Project, Leicestershire County Council for allowing us to use material from their information sheet series.

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