

Field Margins and the Devon Hedge



Although not part of the structure of the Devon hedge, the strip of land which adjoins it – the field margin – can be a valuable and attractive feature. However, with the increased intensity of arable and grassland management, these field margins are all too often viewed as a wasted resource and a source of weeds. This section aims to demonstrate how a margin of perennial grasses and an unsprayed arable headland can be of practical and commercial benefit to the Devon farmer whilst also providing a useful wildlife habitat alongside the hedge.

Why establish field margins?

Ploughing right up to the Devon hedge can be counter-productive. Recent research indicates that, on average, gross yields of arable crops are 15% lower round field margins mainly due to soil compaction and shading. There are often also increased variable costs around field headlands due to higher seed rates and extra applications of sprays. Furthermore, in Devon common weeds such as blackgrass, cleavers, fat hen and hedge bindweed will exploit the ideal growing conditions created at the field edge after spraying or ploughing operations. Not only do these vigorous weeds cause problems for the farmer, they can also choke out typical Devon bank and field edge flora such as red campion, greater stitchwort and hedge bedstraw.

The conservation benefits of field margins




A margin of perennial tussock-forming grasses such as cocksfoot, Yorkshire fog or false oat grass can create a corridor of permanent grassland linking habitats and can be important for farm wildlife throughout the year. Not only do they help suppress some of the invasive weeds previously mentioned, they can support large numbers of beneficial insects like ground beetles, rove beetles and spiders. These species overwinter in the grassy edges before moving into the crops in the early spring and consuming huge numbers of cereal aphids. Over time this can both lead to a saving on farm insecticide bills and be beneficial to the environment. In spring, grass margins are a favourite nesting site of game birds, whilst in summer they are important for bees, butterflies and other insects which feed on the nectar and pollen from the associated hedgerow flora.

The increased density of small mammals like voles amongst the tussocky grasses of the field margin results in these areas forming an impor-

tant hunting ground for birds of prey such as kestrel and for the barn owl, a species which, whilst retaining a stronghold in Devon, is on the decline both locally and nationally. Ditches within these field margins add diversity and provide habitat for wetland species.

Management suggestions for arable field margins

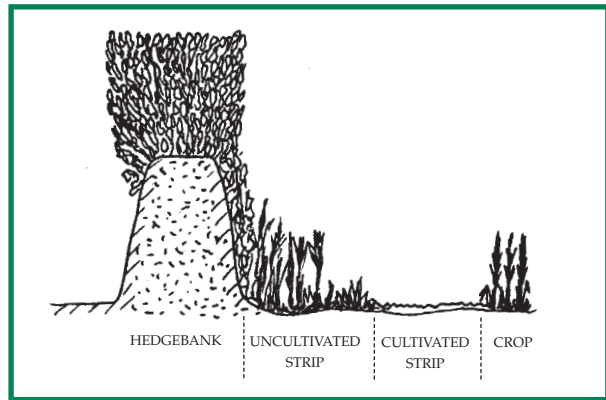
These suggestions apply to most arable and ley grassland in Devon. They aim to help minimise weed and pest problems and create a favourable habitat for a range of farmland wildlife including natural aphid predators.

-  When creating a new field margin aim to make it at least 1m (3ft) in width, or more if it is a Right of Way. Where the field boundary is of particular conservation value – such as a stream or hedgebank rich in wild flowers – a margin of 2m (6ft) or more should be left.
-  Where perennial grasses are not present in the field edge, establish a good field margin flora by sowing a grass and wild flower seed mixture. Suitable species are: red fescue, black knapweed, yarrow, ox eye daisy, tufted vetch and meadow vetchling, together with the tussock forming grasses previously mentioned. Your local seed merchant will have details.
-  During establishment, cutting the sward in spring and summer will greatly reduce the annual weed seed-bank by preventing pollination and seeding.

PICTURES AVAILABLE IN
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Thereafter field margin vegetation should be left long. Rotational cutting every two or three years in the autumn is ideal.

- Wherever possible, maintain by cultivation a further strip at least 1m (3ft) between the field margin and the crop. This will further aid weed control. (See diagram)
- Consider creating a conservation headland by treating the first 6m (20ft) of crop with selective pesticides to control grass and invasive weeds. Most broad-leaved weeds and beneficial insects will survive.
- Take care to avoid accidental chemical spray drift to the field edge. Spray the field edge weeds only as a last resort or spot treat individual plants using a selective herbicide.
- Avoid accidental fertilizer drift into field margins by using a boundary disc or hedgerow deflector fitted to the fertilizer spinner. Pneumatic spreaders can be easily adjusted.
- In Devon, woody plants such as bramble or black-thorn often start to encroach on the grass margins. These can be trimmed back during the autumn or winter when the hedge is trimmed.
- With a grass ley, consider leaving a 1m (3ft) margin or more uncut at the field edge especially during the



first silage cut. If at all possible leave this strip untopped during the winter months.

The Countryside Stewardship Scheme provides payments for the establishment of 2m (6ft) and 6m (20ft) arable field margins (see page 37 for further details).

Further reading

1. Andrews, J., Rabane, M. 1994. *Farming and Wildlife: a practical management handbook*. RSPB.
2. Maclean, M. 1992. *New Hedges for the Countryside*. Farming Press.
3. Pollard, E., Hooper, M.D., Moore, N. 1974. *Hedges*. Collins.
4. Watt, T.A., Buckley, G.P. (eds). 1995. *Hedgerow Management and Nature Conservation*. Wye College Press.

CASE STUDY

Mike Rogers, Higher Farm, Beeson, Kingsbridge

Mr Rogers farms a 40ha (100 acre) mixed arable and dairy enterprise adjacent to Widdicombe Ley. About one-third of the farm is in a Countryside Stewardship management agreement.

Through this agreement Mr Rogers is paid to leave uncultivated some 9km (5½ miles) of field margins in 2m (6ft) or 6m (20ft) widths. These are used to buffer the ley and to link areas of grassland across the whole farm. There are also additional payments for educational access.

Mr Rogers doesn't use fertilizers or sprays and controls weeds by swiping. "Some benefits," he notes, "were soon apparent. Some of the field margins produced wonderful displays of wild flowers we hadn't seen before."

The associated hedges are managed by trimming those next to the narrow margins once in three years, whilst those by the wider margins have been left untrimmed to create shelter and a nesting habitat. Some farm hedges are also managed by steeping.

Mr Rogers leaves some winter stubble, which together with the field margins, have attracted a range of farmland birds. "We attracted twelve curlew buntings on to our stubbles in the first winter and one pair the following summer," says a delighted Mr Rogers.

With the help of the Royal Society for the Protection of Birds, Mr Rogers has drawn up an education pack with teacher's guidance notes. A bird hide and access for the disabled has also been developed on his land in association with the Devon Birdwatching and Preservation Society.