

Managing field margins... for bumblebees

Following the widespread loss of wildflower grasslands, other habitats have become increasingly important for bumblebees. Field margins provide an opportunity to create flower-rich habitats, particularly on arable land.

Why are field margins important?

Our countryside used to look very different – with wildflowers growing in and around a farmed landscape including meadows, pastures, hedgerows and cropped fields. Now that many of these flower-rich habitats have been lost, field margins can play a vital role in supporting our bumblebee populations by:

- **Providing a richness and abundance of suitable flowers in a variety of situations.**
- **Buffering bumblebee populations through food provision when other habitats are not in flower.**
- **Supporting high densities of nest sites.**
- **Increasing connectivity between other areas of habitat.**

Field margins can provide diversity and connectivity across a farm. A combination of different margin habitats can produce a variety of flower resources at different times for of year. By providing patches of habitat for bumblebees on your land you can increase pollinator populations and maximise crop yields. Species like red clover and bird's-foot-trefoil provide vital pollen for bumblebees.





How can sensitive management of field margins help bumblebees?

Bumblebees need pollen- and nectar-rich flowers throughout their nesting season (March to late-September). Many margin options also offer very important bumblebee nesting and hibernation sites, providing relatively sheltered and undisturbed conditions with plenty of nest building materials and abandoned rodent holes. Areas of tussocky grass are often popular nesting sites and are simple to provide.

Pollen and nectar margins

Sowing margins with the seed of pollen- and nectar-rich plants can provide fantastic habitat for bumblebees at the busiest times of their nesting season. Pollen and nectar mixes are widely available and, as they are generally based on agricultural varieties, the mix is relatively cheap. However, they do require re-sowing after around three years. You should sow a mixture of at least four suitable plants, such as red clover, alsike clover, sainfoin, common knapweed, bird's-foot-trefoil and musk mallow. No single species should make up more than 50% of the mix. Pollen and nectar margins need to be sown onto a firm, fine seed bed in early spring or late summer.

Key facts

-  **Upkeep**
Cutting/grazing/re-sowing may be required
-  **Suitable for**
Arable and temporary grass (<five years)
-  **Sustainability**
Short- and medium-term options
-  **Bumblebee rating**
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For spring sown mixes, consider including one or more annual species, such as Phacelia or crimson clover to provide flowers in the first year.

These mixes are suitable for arable land and improved non-permanent grassland. They should not be sown adjacent to species-rich grassland or other semi-natural habitat. This is to avoid transfer between agricultural varieties and native wildflowers.

Cultivated margins

Annual cultivation is vital for many rare arable wildflowers. Consider adding to the variety of habitats for bumblebees on your farm by cultivating some of your margins each year, particularly if you are in an area that supports rare arable plants.

Sensitive field margin management to help conserve bumblebees

| <i>Management</i> | <i>When</i> | <i>Why</i> |
|---|-----------------------------|---|
| Manage your field margins in a variety of different ways to create a range of habitats. | | Provides a variety of flower resources and nesting habitat throughout the bumblebee season. |
| Sow wildflower seed or pollen and nectar mixes in field margins. | Early spring or late summer | Flower-rich margins can provide important food for bumblebees. |
| Cut margins at least twice in the first year after establishment. | Year 1 | Cutting newly sown margins before coarse grasses and weeds are able to dominate enables wildflowers to establish. |
| Cut pollen and nectar and wildflower margins annually, always removing cuttings. | September/October | Late cutting helps to ensure bumblebees have a source of food late in the season and allows flowers to produce seeds. |
| Do not apply chemical fertilisers. | October to February | Use of chemical fertilisers encourages the growth of vigorous grasses and weeds, restricting wildflowers. |
| Apply herbicides to spot treat or weed wipe weeds and non-native species | During growing season | Controls weeds and non-native species to allow desirable species to establish. |

Wildflower margins

Ideal habitats for bumblebees provide a variety of flowers throughout the nesting season. Wildflower margins can provide this in the long-term, as they do not need re-sowing. Annual cutting is required at the end of the summer and the cuttings must be removed to avoid nutrient build-up and provide the best conditions for wildflowers. If you choose to sow wildflowers such as common knapweed, tufted vetch, bird's-foot-trefoil or red clover, ensure that the species are native wild varieties and that the seeds are of UK origin/local provenance. Effort taken to establish margins well is greatly rewarded later on.

Grass margins, beetle banks and buffer strips

Without the enhancement and/or management of wildflower strips, these habitats tend to be more valuable in providing nest sites for bumblebees than for food.

Where such margins are rotated over the short-term, such as in organic systems, the inclusion of an agricultural legume such as red clover is a cost-effective way of providing valuable pollen and nectar.

For long term grass margins, regular cutting in the first 12-14 months may be needed to control annual weeds and to encourage grasses to establish and spread.

Field corner management

Implementing meadow management can encourage a diversity of wildflowers in unproductive or difficult to cultivate areas. Where this is not feasible, management to allow tussocky grass and areas of scrub to develop will help provide nesting habitats.

Unharvested crops

Include pollen and nectar sources when you sow an area of wild bird seed mixture to benefit bumblebees and other insects. Including Phacelia, sunflower

and/or fodder radish for one-year crops or adding red clover for a two-year mix is a simple way of getting the best for a range of wildlife from this option.

Funding

Funding to support provision of field margins may be available under agri-environment schemes or local projects. If your land is in an agri-environment scheme please discuss any changes in management with your agreement advisor.

For advice on how to manage your land sensitively for bumblebees, please contact BBCT.

Get in touch

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