

Managing wildflower meadows... for bumblebees

Managing a meadow appropriately will, over time, help to increase the range and number of flowers that it supports, increasing the quantity and quality of foraging habitat for bumblebees.

Key facts



Upkeep

Annual mowing and grazing



Suitable for

Permanent grassland



Sustainablility Long-term option



Bumblebee rating





Why maintain a wildflower meadow?

Wildflower-rich grasslands are the most important habitat for bumblebees as they provide plants throughout the summer and contain many nectar- and pollenrich plant species. Wildflower meadows can contain up to 40 plant species per square metre. Flowers like red clover, yellow rattle, bird's-foot-trefoil and red bartsia are great pollen sources for queen and worker bumblebees, whilst knapweed and scabious are important nectar sources.

Wildflower-rich grasslands are particularly important for our rarest bumblebees, which have long tongues so love the deep flowers of many grassland plants. Unfortunately, whilst these meadows used to be common. the majority have been lost in recent decades with changes in agricultural practices. Returning to less intensive, more traditional meadow management is much better for bumblebees as it supports a far greater variety and density of flowers. Hay meadows also provide a nutritious and valuable feed crop.

There are benefits for farmers and land managers too, not least potential financial savings. By providing additional resources for



bumblebees you may increase crop yields whilst reducing spend on agri-chemicals. This will have numerous benefits for your land and will help to preserve biodiversity for future generations.

About managing meadows

Cutting a meadow in late summer and removing the clippings is an important part of meadow management. The aim is to retain low nutrient levels in the soil, and to suppress coarse grasses which would otherwise out-compete the wildflowers. The clippings should be left in situ for a few days and ideally turned before removal to allow the hay to dry and the seeds to drop out.

The application of chemical fertilisers should be avoided as it will encourage the growth of vigorous grasses. Application of manure should also be minimal.

Wherever possible, you should seek to graze the meadow during spring and late-summer/autumn. This will help to suppress the grasses which continue to grow after the hay is cut.

Rotational late-cut

If you have several meadows, rotate a late cut (September) around the farm, and cut each field late once every five years or so. This will provide foraging areas for bumblebees later in the season and maintain flower rich grasslands by allowing later-flowering plants to produce seeds.

If you have one or two meadows, try leaving a two-metre uncut strip along one edge of each field. Cut this strip as normal the following year and instead leave an uncut strip along the neighbouring edge. Continue this each year to rotate the uncut strip around each edge of the field.

Sensitive meadow management to help conserve bumblebees

Management	When	Why
Cut for hay once annually.	Mid-July to August	Cutting before mid-July would prevent many important meadow flowers from flowering and setting seed.
Turn and dry the hay over 3-5 days before bailing. In wet summers try to turn 2-3 times before making haylage.	Mid-July to August	Encourages seed to shed which promotes regeneration of the seedbank, supporting a flower-rich grassland.
Rotationally cut a field, or a strip/patch, later in the season.	September	Rotating late-cut field/strips annually helps ensure that bumblebees have a source of food later in the season.
Do not apply chemical fertilisers.		Use of chemical fertilisers will encourage growth of vigorous grasses and weeds, restricting meadow flowers.
Apply only a light dressing of well rotted farmyard manure and only as part of a traditional management regime.		Applying farmyard manure at high levels or when fresh acts like chemical fertiliser and can cause weed problems.
Harrow or roll before mid-March.	February to early March	Operations in spring and summer could destroy the nests of bumblebees and ground-nesting birds.
Only add lime to maintain a pH of 5-6.5 if part of traditional management.		Maintaining a neutral pH will provide the best conditions for a range of bumblebee-friendly plants.
Graze with cattle or sheep in autumn and spring, removing stock by mid-May.	Autumn and spring	Grazing stock helps to provide good conditions for seed establishment by keeping the grass level low, removing thatch and creating patches of bare ground.

Management alternatives

If you are unable to graze the meadow, you could try adding an early spring hay cut. This will also help to stop the meadow growing excessively long, and helps to suppress course grasses and weeds.

Meadow restoration

Implementing good management can sometimes be sufficient to increase the diversity of flowers that a meadow supports. However, you may need to introduce key species that are missing if there is no seed source nearby.

For more information please consult Factsheet 4 in our land management series: Grassland restoration and creation for bumblebees.

Funding

Funding to support this kind of beneficial grassland management may be available under agrienvironment schemes or through local projects. If your land is in an agrienvironment scheme please discuss any changes 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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With the support of
The Redwing Trust
The Slater Foundation