

Managing wildflower pastures... for bumblebees

Pastures can provide vital foraging areas for bumblebees so need careful management to provide a wealth of wildflowers.

Why manage a pasture for bumblebees?

Wildflower-rich pastures can provide bumblebees with a vital food source throughout the summer, as long as the plants are able to flower. The timing of grazing, type of livestock and stocking level therefore determine the quality of even the most species-rich pasture for bumblebees.

Flower-rich grasslands are particularly important for our rarest bumblebees, which have long tongues so love the depth of many grassland plants. Conserving our remaining flower-rich pastures is therefore vital to help bumblebees, particularly in areas that support rare species. Unfortunately, whilst these grasslands used to be common, the majority have been lost in recent decades with changes in agricultural practices. Returning to less intensive, more traditional pasture management is much better for bumblebees as it supports a far greater variety of flowers.

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

Management of a pasture that is already flower-rich should generally aim to maintain the traditional regime. However, where grassland has the potential to be of more value for bumblebees there are several approaches that can be taken.

– Cease summer grazing

Grazing over the summer can greatly reduce the quality of habitat for bumblebees, as livestock selectively graze flower heads even at low stocking levels. If you can, cease grazing from mid-May to mid-July and then reintroduce livestock to graze-off the standing vegetation in the autumn.

– Light summer grazing with cattle

If you need to graze a site in summer it is preferable to graze with cattle, as even one sheep will remove a lot of flower heads from a pasture, greatly reducing the value for bumblebees. Sheep prefer to graze on sweeter, younger vegetation whereas cattle are less selective. Light grazing can still allow plants to flower and produce seeds.

Key facts

-  **Upkeep**
Annual mowing and grazing

-  **Suitable for**
Permanent grassland

-  **Sustainability**
Long-term option

-  **Bumblebee rating**
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– Rotational grazing

If you need to graze over the summer, it is preferable to move stock from field to field on rotation to enable different fields to flower and produce seeds at different times throughout the summer. Temporary fencing is an alternative option to consider. These measures provide bumblebees with a continuous source of food.

– Grazing level

As with any kind of grassland management, it is important to graze at the right level. Undergrazing can lead to the development of tall grasslands with few flowers for bumblebees. It also enables scrub to invade the grassland. Overgrazing can lead to over-trampling of the ground, localised nutrient enrichment and damage to the grass structure, all of which are bad news for both farmers and bumblebees.

Sensitive pasture management to help conserve bumblebees

<i>Management</i>	<i>When</i>	<i>Why</i>
Time grazing carefully: either avoid summer grazing or graze fields rotationally over summer months (see below).		Grazing during the summer can remove all value for bumblebees as livestock selectively graze flower heads, even at low stocking densities. Summer grazing can also prevent many wildflowers from setting seed, which will reduce the flowers available to bumblebees in the following summers.
Graze with cattle or sheep in autumn and spring.	Autumn and spring	Grazing stock helps to provide good conditions for seed establishment by keeping grass levels low, removing thatch and creating patches of bare ground.
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.		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.

Provide bumblebee nesting habitats

Whilst flower-rich habitats are most important for bumblebees, they also need areas to nest in. Areas of longer, tussocky grass, for example along the edge of a field, provide sheltered areas away from trampling stock or mechanical operations.

Instate meadow management

If you have access to hay cutting machinery and have other fields to keep your stock in over the summer, you could consider instating some meadow management. Allowing the plants to grow over the summer months before undertaking a hay cut can provide excellent habitat for bumblebees.

Grassland enhancement

Implementing good management can sometimes be enough to increase the diversity of flowers that your grassland supports. However, if there is no source of seed nearby you may need to introduce key species such as clovers, vetches and knapweed.

Funding

Funding to support this kind of beneficial grassland management may be available under agri-environment schemes or through local projects. If your land is in an agri-environment scheme please discuss any changes with your agreement advisor.

Get in touch

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