

Managing active mineral sites... for bumblebees

Minerals sites, both active and restored, offer excellent opportunities to provide habitat and foraging (feeding) opportunities for many of the twenty four species of bumblebee in the UK. They are hard working and versatile pollinators of both agricultural crops and many wildflower species. Bumblebees have been declining due to the widespread loss of wildflower grasslands and changes in agricultural practices. There are a range of simple and cost-effective measures that active sites can adopt to help support conservation efforts.



Key measures

1) Identify areas where it is appropriate to create new flower rich habitats.

Non-operational land, topsoil bunds and edges of haul roads may all be suitable for seeding with wildflower mixes. Select a range of plants that cover the flowering period from **late February to October**. Bumblebees need a consistent supply of flower-rich habitat throughout the life of the colony. See page 2 for details on key bumblebee plants.

Consider **seeding top soil bunds** with native wildflowers or using specifically-tailored pollen and nectar mixes suitable for agricultural sites.



A number of **seed companies** supply native wildflower seeds and can advise and provide suitable species and seed mixes based on the site soil type and conditions. A directory of recommended seed suppliers is provided on Flora Locale's website: www.floralocale.org/page24182.

If there are managed wildflower/grassland habitats nearby, it may be possible to take a cut of green hay in late summer and spread this on identified areas to provide a local, native seed source.

2) Enhance existing non-operational land

Keep grassy habitats open and prevent encroachment from scrub and rank grasses through cutting and collecting, grazing, and scrub control with selective herbicides. If cutting and collecting from grassland in mid summer then aim to leave a field or buffer strips that are left uncut or not cut until October to provide late forage. Rotate the late cut areas around the site each year.

3) Retain areas of ruderal vegetation

Plants that thrive on disturbed ground, such as gorse, willowherb and bramble are known as ruderals and are excellent nectar and pollen sources for bumblebees.

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3) Nesting habitat

Bumblebees nest in rough grassland, field margins or hedge banks. Retain grassy, tussocky areas and edges. Some species nest underground in old mouse or vole holes, while other species create a nest at the base of tussocky grass. Allow these areas to remain undisturbed.

4) Retain dead and rotting wood.

Tunnels vacated by wood-boring beetles provide nest sites for solitary bees.

Plant wildflowers or retain established flower-rich areas close to rough grassy areas. Bumblebees will forage between 1 – 2km from the nest to find food.



Bumblebees have different tongue lengths so need a **range of flower shapes** to feed from.

Short-tongue bees need **open flowers** e.g. Bramble, knapweed.

Long tongued bumblebees favour plants from the **figwort family** (eg: red bartsia, toadflax), the **legume family** (eg: red clover, tufted vetch, kidney vetch, bird's foot trefoil), the **teasel family** (e.g. field scabious, devil's-bit scabious), the **daisy family** (e.g. knapweed) and the **dead nettle family** (eg: white dead nettle, hedge woundwort, black horehound).

Key bumblebee plants

Bumblebees need both **nectar to provide energy and pollen to provide protein for larval development.**

Seed selection should include pollen and nectar sources in spring when the queen bumblebees are emerging from hibernation and need to build up reserves of energy quickly. Late forage availability (plants such as scabious, knapweed and red bartsia) in September/October is essential for rarer bee species to complete their life cycle.



bumblebeeconservation.org

A series of land management factsheets can be found on our website. If you would like detailed advice about bumblebee-friendly management options for your land please contact your local Bumblebee Conservation Trust Conservation Officer.

Get in touch

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www.afterminerals.com

www.restorequarries.eu