

Sourcing wildflower seed... for bumblebees

Due to changes in land management methods, many grassland areas have lost their wildflower seed bank. Seed introduction is one method of bringing the flowers back.

The addition of locally sourced native seed to a meadow 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 and other wildlife.

Site selection and preparation

It is vital to select an appropriate site, and prepare the ground before seed is added. Sensitive management may be required for a number of years before a site is ready. Adding seed to a site which is still dominated by coarse vegetation, or high in nutrients, could be a waste of time, money, and wildflower seed.

Sourcing seed for grassland restoration or creation

When adding seeds to a site in the countryside it is vital that they are of native species and that they originate from the UK. Planting seeds of varieties from overseas is never appropriate. It is also preferable that the seeds are from a local source (known as 'local provenance'). Otherwise there is a risk that invasive species or inappropriate variants of wild plants could be introduced. By selecting native species that are typically found growing in other semi-natural sites nearby you can help

protect the local distinctiveness of habitats in your area. Flora locale is a charity that aims to promote good practice in the use and sourcing of British and Irish wild flora and is a good source for advice on this subject (www.floralocale.org).

It is important to choose seed which is appropriate to the project purpose, the geographical location and the physical conditions of the site. Important factors include climate and soil characteristics. For example, if the site is naturally wet then seed should be sourced from a nearby wet meadow (or using a seed mix for a native wet meadow) to ensure that the plants thrive.

You could also consider using wildflower plugs, especially for plants that are difficult to establish from seed. Plug planting is useful for amenity areas where it will help provide a good show of flowers in the first year.



A Garden bumblebee feeding on red clover.



Plants such as red clover, yellow rattle, bird's-foot-trefoil and red bartsia are great pollen sources for queen and worker bumblebees. Knapweed and scabious are important nectar sources.

There are a several ways to source seed for use in grassland restoration and creation.

– Purchase seed mix

Some companies can supply native origin seed mixes of local provenance, harvested from flower-rich grasslands. Firms to try include: Scotia seeds, Emorsgate, Herbiseed, Habitat Aid and Charles Flowers. Steer clear of merchants selling 'meadow mixes' that contain agricultural variants and non-meadow species such as poppies.

– Harvest seed from flower-rich sites

The best way to be sure of where seed has come from is to harvest it from a local site. There are a number of suitable methods, some detailed overleaf. It is also vital that it is harvested rotationally and from a small proportion of the field to protect the valuable seed bank.

Introduction of locally sourced wildflower seed to help conserve bumblebees

<i>Management</i>	<i>When</i>	<i>Why</i>
Implement sensitive management regime: no/very light application of farm-yard manure; do not use chemical fertilisers.		Sensitive management will help more wildflowers to establish and will reduce the dominance of coarse grasses.
Prepare the site for addition of wildflower seed – see Factsheet 4.	Summer	To ensure that the conditions are appropriate for seeds to germinate and establish.
Harvest native, locally sourced seed using chosen method.	Summer	Seed should be of native origin and ideally of local provenance.
Spread wildflower seed.	August to early September	Addition of seed will help to provide a more diverse nectar and pollen source for bumblebees.
Harvest and spread green hay.	Mid-July	Addition of green hay will help to provide a more diverse nectar and pollen source for bumblebees.
Implement sensitive 'establishment phase' management.	For 1 – 5 years after seed sown	Ensure that wildflower seeds are able to establish and that weeds and rough grasses do not dominate.

Seed Harvesting Methods

Brush-harvesting and vacuum harvesting

- Harvest seed in mid-late July
- Need dry conditions

A brush harvester is usually side-mounted with brushes to remove and collect seeds. This method can collect a relatively grassy seed mix, as lower-growing flower seed heads are more difficult to harvest. Alternatively, a hand-held 'leaf vacuum' can be used to harvest seed. This is a simple and effective method for collecting seed on a small scale. For small scale projects, you could collect seed of desirable meadow species by hand from a meadow nearby. Please note: you must have the landowner's permission to collect seed.

Green hay

- Harvest and spread in mid-July
- Effective for seed harvesting on a large scale

Traditional hay-making machinery or a flail mower-collector is used to cut and immediately harvest an area of flower-rich grassland.

The 'green hay' is quickly transported to the restoration/creation site, where it is spread across the ground and left for the seeds to fall as the hay dries. Green hay should only be harvested from a small proportion of the donor site.

Establishment: Years 1 – 5

In the period after sowing (Sept – Nov) keep the grass short so that light can help germination. This can be done with short periods of intense grazing or cutting and removing the grass.

It may be necessary to cut and collect in spring and autumn in the first few years of establishment.

This will allow the flowers to set seed but stop competitive grasses taking hold. Commitment to appropriate long term management is essential for successful grassland restoration.

Funding

Funding to support provision of some habitats may be available under agri-environment schemes or through 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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