



Make a mini meadow

Creating wildflower habitat in an urban space is great for pollinating insects and can create a colourful summer buzz in your garden. You can help be creating a mini wildflower meadow or window box.

Nectar rich flowers such as Bird's foot trefoil, Red clover and Greater knapweed are perfect for pollinators. Bees, flies, wasps, moths and butterflies are just some of the creatures you might find in your mini meadow next summer. So, get sowing!

How to make a mini meadow

Sow the seeds in autumn or early spring. Scatter on bare earth (weed free) in full sun.

Do not improve the soil– these plants flourish on poor soil.

Once sown, lightly tread the seeds to bring them in contact with the soil. You do not want to bury them.

If rain is not forecast, water in lightly. Cut back/strim and remove the seed heads in September.

You will need:

- Spade - to clear top soil
- Wildflower seeds (3g will cover 1m²)
- Watering can



Gardening for bugs

Gardens have become a valuable refuge for wildlife and it's never been more important to garden with wildlife in mind.

Gardens form an important network of varied habitat that is vital for bugs as a sanctuary from intensively farmed countryside and flower-free urban landscapes.

Inside you will find pointers to get you started in thinking about wildlife when you tend your plot.

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- Wildflower gardening
- Create a mini meadow
- Make a bug hotel
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Wildflower gardening

A good way of helping bugs in your garden is to plant wildflowers. These will provide pollen and nectar for bees and butterflies, and larvae (such as caterpillars) often feed on their leaves.

The best place to plant wildflowers is in a sunny spot in the garden, but if you don't have the space you can plant them in a container. Any container will do as long as it has drainage holes in the bottom. Once you've found a suitable container (an old bucket or plastic tub will do) fill it three-quarters full with peat-free compost.

Many wild flower seeds need to be chilled before they germinate so a good time to plant them is in late Autumn; firm down the soil, sprinkle the seeds on the surface, gently press them in with something flat, then water them. After that you can leave them alone, just make sure the compost doesn't dry out.

There are lots of wildflowers to choose from (for example, Knapweed, Lady's bedstraw, Meadow buttercup, Cowslip, Oxeye daisy, Black medic, Field scabious, Selfheal, wild parsnip, wild majoram, and Yarrow). If you buy a packet of mixed wildflower seed do make sure that they are all types that are native to the UK. If you can't find wildflowers, many bugs will enjoy herbs such as rosemary, thyme, sage, basil, sweet marjoram, chives, lovage, lemon balm, parsley, borage and mint.

When your plants start to grow you might have to thin them out if they are too crowded but otherwise leave them alone apart from watering. Once the wildflowers have finished flowering don't cut them back or pull them up. Some wildflowers will flower again the next year, while others grow one year and flower the next.

Make a bee hotel

Bees are beautiful and they pollinate flowers providing us with fruit and vegetables. Not all bees live in big a big social hive, some bees live alone. These solitary bees like to nest in hollow plant stems and you can make them a ready made nesting space in your garden.

How to make a bee hotel

Cut the hollow plant stems into 10-20cm sections.

Tie a bundle of 15-20 tubes together with garden twine or string.

Hang the bee hotel in a sunny but sheltered area about 5 feet about the ground. The side of a shed or on a trellis is ideal.

Is a solitary bee using my bee hotel?

You will know if a solitary bee such as a mason bee or leaf-cutter bee is using your bee hotel if the hollow tubes are blocked with a leaf or mud. A female solitary bee will usually use one hollow tube to the exclusion of other females (although that one female may end up using several tubes if she lives long enough). She will create a series of cells each containing a food parcel of pollen and nectar for the grub. Only a single egg is laid in each cell. The adult solitary bee eventually seals the entrance to the tube with mud or a perfectly sized section of leaf. You may notice some of your garden plants have half moon or full-circle shaped cuttings. These are made by leafcutter bees which cut them using their scissor-like mandibles.

You will need:

- Hollow plant stems or bamboo canes (diameter approx. 1.5-2cm)
 - Garden twine or string
 - Saw or knife to cut the canes
- A nail or hook to attached the bee hotel to the shed



Make a bug hotel

In the autumn and winter as the nights start getting colder, bugs need a safe dry place to shelter and hibernate. Creating a bug hotel will provide bumblebees, beetles, spider and snails a place to stay over the winter period. Plus, it is a great way to tidy up the dead leaves in the garden.

How to make a bug hotel

Curl the mesh or chicken wire into a tube and tie it in place with garden string, wire or twine.

Put some sticks through the bottom of the mesh tube to provide an off the ground base to stop the hotel getting damp.

Fill the tube with dead leaves and give the bug hotel a lid to make it water tight, by placing a flat piece of wood or plastic over the top of the tube.

Add more leaves over time as the old leaves dry out and shrink down.

Place the bug hotel in a quiet corner of the garden, preferably in the shade.

To secure the bug hotel from high winds you may wish to open a wire coat hanger to create a v-shaped peg in the ground.

You will need:

- Plastic mesh or chicken wire (about 1 metre by 1 metre)
- Garden string, wire or twine
- Flat piece of wood or plastic
- Pile of dead leaves
- Wire coat hangers



Many bugs will have laid eggs in the compost, or hidden amongst the dead stems and leaves to hibernate over winter. Only tidy up small patches of ground at a time, rather than all at once, so bugs will have somewhere to live.

Other wildlife gardening tips

Bugs love an untidy garden; heaps of dead wood and leaves lying around the place are a source of food to some bugs and provide shelters for others. For many bugs a heap of autumn leaves is the ideal place to hibernate through the winter, but most people prefer their gardens tidy. If you prefer a tidy garden then why not leave a patch of untidiness or make a bug a hotel.

Compost heaps will attract woodlice, millipedes, and slugs- essential for breaking down organic and garden refuse!

Bees often nest in old walls and ensure pollination of your garden plants.





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Gardening for bumblebees

Gardens have become important refuges for bumblebees, and you can encourage them to visit your garden by following the simple tips provided here.

Bumblebees are dependent on flowers for nectar (sugary liquid) and pollen (protein and minerals for developing larvae). They also need a place to shelter and build their nest to maintain a successful colony throughout its life-cycle.

There are a few tips to bear in mind when creating a bumblebee-friendly garden:

They need a continuous succession of flowers from spring to autumn, so there is always a food supply. Queens may appear even in January during warm spells; their disrupted hibernation making them hungry for nectar.

Most bumblebees prefer perennial flowers that flower from year-to-year. Herbs and traditional cottage-garden plants are ideal.

Flowers are best planted in large groups or patches ('drifts') of the same kind, so that the bees have good foraging sites. Bumblebees like to stick to one type of flower while foraging, and can waste energy scouting around for more forage.

A selection of flowers of different shapes (e.g bowl-shaped, bell-shaped, 'lipped' and tubular) will appeal to different species, as they have different tongue lengths.

If possible, a part of the garden should be left less intensively cultivated and more informal, to provide suitable nesting sites. Carder bumblebees will make their nest in long, tussocky grass. Bumblebees will also create nests in undisturbed compost heaps or underneath hedgerows.

You can also improvise by creating an underground nest site by digging a hole, putting a ball of moss or dry grass in the bottom and covering with a slab so as to leave a small entrance. Bumblebees will also use the smell of an abandoned, old rodent's or bird's nests as a cue to the presence of a suitable nesting site.

Flowering plants from these families particularly appeal to bumblebees:

Lamiaceae (Oregano, Lavender, Rosemary, Catmints, Deadnettle, etc) – mainly as a source of nectar. White deadnettle (*Lamium album*) is an essential early source of nectar.

Boraginaceae (Lungwort, Comfrey, Cynoglossum, Cerinthe, etc)

Scrophulariaceae (Foxgloves, Veronica, Hebe etc)

Dipsacaceae (Teasels, Scabiouses)

Asteraceae (Thistle-like flowers, Cardoon, Knapweeds, Asters, Solidago etc)

Fabaceae (Vetches, Clovers, Broom, Trefoils, Runner Beans etc). – mainly as a source of pollen. Red Clover (*Trifolium pratense*) and Birds foot Trefoil (*Lotus corniculatus*) are important bumblebee flowers.

Rosaceae (Single- flowered Roses, Brambles, Raspberries)

Ericaceae (Heathers, Blueberries, Bilberries, Strawberry Tree)

What bumblebees don't like:

Insecticides (including organic ones)

Most bedding plants (i.e. as sold in polystyrene strips in garden centres and DIY stores): Petunias, Begonias, Busy Lizzies, French Marigolds, Pelargoniums, Pansies, etc.

'Double' flowers (i.e. flowers where stamens are replaced by extra rows of petals)

Other highly-hybridized horticultural novelties.