



## Pollination Education Station (PES) Planting & Installation Guide

### Why is action for nature so important?

Britain's nature, a depleted oasis, relies on pollinators for every third mouthful we savour – the unsung heroes behind our food and thriving ecosystems. Human activity has transformed built-up areas like Sussex, demanding innovative conservation solutions and action by all.

### Position and maintenance of the PES

Position the PES in full sun, facing south or south east, ideally in a position where lots of people walk by, so that they can enjoy it, observe nature and learn how they can help pollinators in their garden, church, school, place of work and green spaces.

Try and keep the entrance to the pollinator cabinet clear of big vegetation. Keep it dry at all times, to prevent the contents going mouldy.

Water the plants to help get them established and during extended dry periods. Ideally use rainwater from a water butt. Some of the plant such as rosemary, sage, thyme and borage are drought tolerant so, once established, avoid over-watering.

### Maintenance of the PES

Keep an eye on the materials in the pollination station, you might even see a bee come out of the tunnel! Every 2 or 3 years in the spring, when you think there is little activity, you might like to refresh the bamboo and wooden bee blocks. Solitary bees use these hollows, segmented stalks of bamboo canes as artificial nesting tunnels that closely mimic the natural cavities they seek out in the wild.

**Individual Nursery Cells:** Female solitary bees (like mason or leafcutter bees) fly into the hollow bamboo tube and lay a single egg at the very back.

**Food Provisioning:** Before sealing the egg in, the mother bee packs a mixture of pollen and nectar inside the tube to feed the developing larva.

**Partition Walls:** She then builds a wall to seal that specific nursery cell using chewed leaves, mud, or resin. She repeats this process, creating a line of individual cells down the length of the bamboo tube.

**Emergence:** The following spring, the mature bees chew through the protective seals and exit the bamboo to start the cycle over again. The tunnel in the bamboo and wooden bee blocks will no longer be capped off, but debris will remain inside the tunnel. At this time, we suggest bamboo or wooden blocks with drilled holes should be removed and carefully put in a nearby hedge in case bees are still present.

At the same time, you might choose to replace hollow material like bamboo. PLEASE MAKE SURE THE TUBES AND HOLES IN WOOD DO NOT HAVE JAGGED EDGES OR THESE WILL TEAR BEES WINGS ;-(

This short YouTube video might help [https://www.youtube.com/watch?v=EBet\\_OTo13c](https://www.youtube.com/watch?v=EBet_OTo13c).

## PES cabinets

We mainly supply the PES as an empty cabinet ready for you to fill as an educational community installation. This is a fun team building exercise for this project. They will have some blocks of wood which have drilled holes of varying sizes to suit different types of bees.

You will need to appeal to your community to go for a lovely foraging walk in the countryside to collect materials such as fir cones, bark, moss, twigs, sheep's wool, hollow plant material like bamboo, pheasants berry and bull rushes. You can buy mason bee nesting tubes if you want <https://www.gardening-naturally.com/outdoor-living/wildlife-care/mason-bee-tubes>. You might add an old brick or two for the mason bees. Broken terracotta pots are good too.

## Planting in the PES and nearby area (if possible)

### What do pollinators like to eat?

We will supply the PES with pollinator friendly plants which are kindly donated to our charity by Greenwood Plants. Lower in this document you can learn about some of the best plants for pollinators which you can plant around the PES and in your garden or community green space.

### What does the PES come with?

- Two posts and an A2 educational plaque.
- Sponsored by ..... sign.
- Topsoil and manure.
- Chicken wire to secure the pollination cabinet (although if stuffed as a community event, someone at the location will need to attach the chicken wire).



#### MIDI

H150cm x D105cm x W50cm

PES - £500

Educational installation event

£250

Delivery if beyond 10 miles of Billingshurst 0.45p per mile



#### MAXI

H180cm x D130cm x W80cm

PES - £600

Educational installation event

£250

Delivery if beyond 10 miles of Billingshurst 0.45p per mile

## Planting for the pollinators

These 9 common herbs are among some of the best plants in providing bees with valuable nectar and pollen throughout the year. They also happen to be some of the best herbs for cooking with. These popular herbs are easy to grow, saving you money on your shopping bill, reduce packaging, food miles and CO2.

Rather than buying the herbs in plastic pots from the garden centre we suggest you divide sprawling herbs from your garden or a friend or neighbour's garden. Herbs like mint, thyme or oregano are easy to split, just carefully dig up the plant and split in two, salvaging chunks of the roots. Then, replant it and water it regularly until the roots are reestablished.

Perhaps on the day of your PES installation, you could organise a herb swap after you have selected the best herbs for your PES!

Here are some suggestions for easy herbs to grow for your pollinators and a few cooking ideas which are great with fresh garden herbs. Please try and select herbs which provide the widest coverage across the year.

With this in mind you might like to supplement your herbs with early flowering bulbs and plants to provide nectar and pollen when there is little around. These spring flowers would be good: snowdrops, primroses and crocus, using organic bulbs and seeds of course. The nectar season can be extended into late autumn by planting ivy (*Hedera helix*) to grow up the side of the PES.

### Best herbs to grow in the PES herb containers:

#### 1. Wild marjoram plant and oregano

This aromatic herb produces pinkish-white drifts of nectar-rich flowers. Growing wild marjoram attracts bumblebees, honeybees, leafcutter and furrow bees. Bees also love oregano – it is from the same group of plants as marjoram (*Origanum*).

**Flowering season:** Summer and early autumn.

**Cooking with marjoram:** Sprinkle on a home-made pizza. Add to tomato sauces for pasta. Combine with other herbs in a stuffing. Use to add flavour to beans, chickpeas and lentils in stews and salads.

**Types of herbs:** Look for *Origanum vulgare*, the marjoram that grows wild in the UK. Pot marjoram and sweet marjoram (*Origanum majorana*) are also available.

#### 2. Rosemary

Pluck fresh needles from this drought-tolerant herb all year round. Its flared blue-purple flowers attract mason bees, flower bees, bumblebees and honeybees. Short of space? Pot creeping rosemary in a sunny spot.

**Flowering season:** Starts in spring. Can continue throughout the year – even in winter.

**Cooking with rosemary:** Rosemary keeps its flavour well when cooked so it's a perfect companion to slow-roasted dishes. It will easily liven up a tomato sauce for pasta too, along with anchovies.

**Types of herbs:** Look for *Rosmarinus officinalis* or, if you have more space, creeping rosemary (*Rosmarinus officinalis prostratus*).

#### 3. Mint

Does mint attract bees? You bet. And it's easy to grow. **Pop in a pot** to prevent it invading other plants. Got a pond? Try growing water mint (*Mentha aquatica*) – bees and hoverflies love it.

**Flowering season:** Summer and early autumn.

**Cooking with mint:** Freshen up any dessert using a variety of mint flavours including strawberry, chocolate and ginger. Mint water ice is very easy to make and delicious on hot summer days. Mint tea is refreshing and a great digestive.

**Types of herbs:** Try spearmint (*Mentha spicata*) for a traditional taste, peppermint (*Mentha x piperita*), for a slightly stronger flavour, and apple mint (*Mentha suaveolens*) for something different.

#### 4. Chives

Chives are easy to grow in pots or a window box. Snip with scissors at the base of the plants to encourage more leaves to grow. The edible purple flowers feed bumblebees, honeybees, mason bees and leafcutter bees. Share with the bees and add colour to your salads.

**Flowering season:** Spring and summer.

**Cooking with chives:** Great with soft white cheeses. Try with goat's cheese, tomatoes, salad leaves and a drizzle of olive oil. Sprinkle freshly snipped chives on an omelette. Or add to a potato salad for a delicious, mild oniony flavour.

**Types of herbs:** *Allium schoenoprasum* – and *Allium tuberosum*, which has a delicate garlic flavour.

## 5. Sage

Leafcutter bees and long-tongued garden bumblebees love its purple spiked flowers. Edible sage plants are a world apart from the dried herb. Keep in a sheltered spot and you'll have fresh sage pretty much all year round.

**Flowering season:** Late spring, summer.

**Cooking with sage:** Sage is delicious in butternut squash risotto and makes a lovely garnish for this dish. Quickly fry whole sage leaves for a few seconds in a little olive oil until they turn crisp and add as a finishing touch.

**Types of herbs:** Try common sage (*Salvia officinalis*) for cooking. There are ornamental (non-edible) varieties too.

## 6. Thyme

Grow a herb 'carpet' – plant thyme in paving cracks and enjoy the aroma when you walk on it. It works just as well in a pot. Fantastic for honeybees, bumblebees, mason bees and leafcutter bees.

**Flowering season:** Summer.

**Cooking with thyme:** Delicious in a risotto with courgettes, lemon, garlic and parmesan. Or try something a little different – add fresh thyme leaves to Bramley apples, stew with a little sugar and use in a crumble.

**Types of herbs:** *Thymus vulgaris* (common thyme). "*Thymus polytrichus* subsp. *britannicus*" attracts lots of bumblebees. There are many varieties of thyme – some taste better than others.

PES spring ideas: Bees need our help in early spring. A great way to help them is to plant spring bulbs in autumn. Bulbs are hardy and reliable plants, so you can guarantee the bees will have a source of pollen and nectar when there's little else in flower. Here are a few good early bloomers: crocuses, alliums, *anemone blanda*, winter aconite, crocus, iris and grape hyacinths.

## **Best plants for pollinators but not in the PES container**

### **Why not make a beautiful pollinator bed beside the PES or set within a wildflower bank!**

## 7. Borage

Bees love borage, aka 'starflower'. Its shallow, bright blue blooms attract bees with short tongues, like the buff-tailed bumblebee. You can eat the flowers as well as the leaves – but leave some for the bees!

**Flowering season:** Spring, summer and early autumn

**Cooking with borage:** The beautiful blue flowers add 'wow' to summer dishes and cocktails. They have a sweet, honey-like taste. Borage leaves taste a bit like cucumber. Try them in salads or use as a garnish.

**Types of herbs:** Look for the annual *Borago officinalis*. It self-seeds, so you shouldn't need to buy plants every year.

## 8. Hyssop

Hyssop thrives in sunshine and tolerates drought. Its strong-flavoured leaves taste like a cross between mint and sage. The deep flowers suit longer-tongued bees, including garden bumblebees and wool carder bees.

**Flowering season:** Summer and early autumn.

**Cooking with hyssop:** Hyssop is strong, so use sparingly. Young leaves go well with oily fish such as mackerel or sardines, with new potatoes and a salad of watercress and rocket.

**Types of herbs:** *Hyssopus officinalis*.

## 9. Lemon balm

The smell of the leaves crushed between your fingers is delicious. Easy to grow, and like mint, benefits from being in its own pot because it will spring up everywhere. Honeybees and bumblebees, particularly common carder bees, flock to the tiny creamy-white flowers.

**Flowering season:** Summer.

**Cooking with lemon balm:** Lemon balm complements fish. Use the leaves to make lemon balm pesto – whizz them together with pine nuts, olive oil, lemon juice, parmesan cheese and a sprinkling of fresh chives.

**Types of herbs:** *Melissa officinalis* – named in honour of honeybees. *Melissa* means bee in Greek, which in turn comes from *Meli* (honey).

Other examples of favourite food plants for the caterpillars of different butterfly species include:

- Alder Buckthorn for Brimstones
- Holly and Ivy for the Holly Blue
- Cuckoo Flower and Garlic Mustard for Orange Tips and Green-veined Whites
- Blackthorn for the rare Brown Hairstreak

- Sorrels and docks for the Small Copper
- And, of course, Nettles for Peacocks, Red Admirals, Commas and Small Tortoiseshells
- Field Scabious: attracts 21 different butterfly species
- Verbena Bonariensis (16 species)
- Devil's bit Scabious (15 species)
- Hemp Agrimony (15 species)
- Bird's-foot-Trefoil (11 species)
- Ox-eye Daisy (11 species)
- Betony (9 species)
- Buddleia (9 species)
- Dame's Violet (9 species)
- Greater Knapweed (9 species)
- Marjoram (9 species)
- Yarrow (9 species)
- Meadow Vetchling (6 species)
- Common Fleabane (6 species)
- Red Champion (5 species)

## Top tips for ways everyone can help:

- Diversify your garden with organic bulbs and seeds to support pollinators year-round. You could start with spring snowdrops and primroses, or plant trees and shrubs such as cherry-plum, goat willow, blackthorn, plum, wild cherry, crab apple and larger willows.
- Encourage people, including your local council, to support 'No Mow May' and let a part of your garden go wild to support biodiversity.
- Opt for organic choices in clothing, food, beverages, and home and garden products for a chemical-free lifestyle.
- Encourage your council, estate managers, and local farmers to prohibit the use of pesticides and neonics that harm bees on their managed lands.
- Treat yourself to local honey and support beekeepers in your community.
- Encourage people to use these two brilliant apps which help to educate and connect people to their beautiful natural world – I-Nature and Merlin Bird ID. These and the Pollination Education Station enable children and adults to become citizen scientists. Take a look for yourself.
- **Schools** – the Natural History Museum is leading a partnership that has developed the new National Education Nature Park and Climate Action Awards, empowering young people to make a positive difference to both their own and to nature's future. Please sign up and work towards this important award. Please tell us if you are so we know who is in on the programme! These free programmes provide educators with the resources, support and guidance needed to put climate and nature at the heart of education. <https://www.nhm.ac.uk/about-us/national-impact/national-education-nature-park-and-climate-action-awards-scheme.html>



Learn more about our Pollination Education Station project,  
ways you can help pollinators and building thriving, healthy  
and happy communities

[www.sussexgreenliving.org.uk/renature](http://www.sussexgreenliving.org.uk/renature)

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