

Gardens:

actions to help pollinators



All-Ireland Pollinator Plan 2015-2020



Implementation coordinated by the

National Biodiversity Data Centre



National
Biodiversity
Data Centre
Documenting Ireland's Wildlife



www.biodiversityireland.ie/pollinator-plan

Guidelines 2



Pollinator friendly garden_Ann Harrington Rees

Gardens: actions to help pollinators



We need pollinators to grow many of the fruits and vegetables that make up a balanced diet. The wildflowers that provide us with colour and beauty in our landscape also need pollinators, as do many of your garden plants.

Most pollination in Ireland is carried out by bees. This is because bees feed their young exclusively on pollen so are entirely focussed on collecting it from flowers to bring back to their nests. In Ireland, we have 98 different types of bee: the honeybee, 20 different bumblebees and 77 different solitary bees. In providing us with the service of pollination, these bees are helped by other insects like hoverflies, butterflies and moths.

Unfortunately, pollinators are in trouble. We know that one third of Irish bee species are threatened with extinction. The All-Ireland Pollinator Plan 2015-2020 is an island-wide attempt to help pollinators by creating a landscape where they can survive and thrive. All of us have a role to play in the Pollinator Plan, and gardens of any size can make a big difference.

These guidelines are aimed at anyone that wants to make their outdoor space more pollinator friendly. No matter the size, if your garden has pollinator friendly flowers it will provide a pit stop for hungry bees. Whether you have just a few window boxes, a medium or large garden, or are involved in a community garden, you'll find pollinator friendly actions here that relate to your space. We have suggested no or low-cost actions, ranging from very simple to slightly more involved, so you can pick the ones that suit you best.

Garden for pollinators so that you can grow your own fruit and vegetables, have a healthy balanced diet and see flowers and wildlife in your local landscape



What does a pollinator friendly garden look like?

For gardens to be good for pollinators, they need to provide food in the form of flowers, shelter for nesting and safety from chemicals.



Shelter:
Solitary bee nest boxes

Safety:
Manual weeding instead of pesticide use

Food:
Flowering hedgerows surrounding property

Shelter:
Earth banks/ bare soil/ dry stone walls for solitary bee nesting

Garden for pollinators so they will be there to visit your fruit and veg (e.g. strawberries, fruit trees, tomatoes, courgettes, etc.)

Bee friendly garden plants that flower from Spring-Autumn

Shelter:
Areas of long grass for bumblebee nesting

Food:
Flowering hedgerows, shrubs or trees

Food:
Dandelions and clover blooming in strips or patches of long grass

Food:
Pollinator friendly window boxes/hanging baskets/potted herbs



Food and shelter

A

Identify and protect existing areas that are good for pollinators

Your garden may already have areas that are providing food and shelter for pollinators. The easiest and most important thing you can do is identify and protect these spots.

➤ Action 1:

Protect existing sources of food and shelter for pollinators

If the following already occur in your garden, they should be protected: patches of wildflowers or “weedy” plants (food); flowering hedgerows (food); bare soil on flat or sloped ground, e.g. lawn edging (shelter); long grass (shelter); dry stone walls (shelter).



Food

B

Reduce the frequency of mowing of grassy areas

The most cost-effective way to provide food for pollinators is to reduce the frequency of mowing in some areas of your garden and allow wildflowers to grow naturally in the longer grass. However this does not mean that you have to let your garden grow completely wild. The actions below suggest different ways that you can reduce mowing in your garden to make your lawn useful for pollinators.

➤ Action 2:

Let the Dandelions bloom!

Continue to mow as usual, with one simple change; don't cut your grass until mid-April, after the Dandelions have flowered but before they set seed. Dandelions provide a vital source of spring food for pollinators.



Info Box:

Some plants we usually think of as weeds, like Bramble, Clovers, Thistles, Ivy, Nettles and Dandelions, provide an important source of food for all types of pollinators. Consider keeping a small section of your garden where these types of plants are allowed to grow.



Info Box:

In early spring, one bumblebee queen needs to feed on 6000 flowers a day to have enough energy to raise her young! Having plants in your garden that flower in March and April is critical for these hungry queen bees.

➤ **Action 3:**

Mow your grass every 6 weeks

Consider cutting some areas of your lawn on a 6-week rotation. This will allow flowers like Clover to bloom, providing more food for pollinators.

➤ **Action 4:**

Reduce mowing to create a wildflower patch, strip or meadow

Some gardens may be large enough to allow portions of the grass to grow long. This will provide native flowers for food. You can transform your whole lawn into a wildflower meadow, or alternatively can create small patches or strips in part of your garden. By changing your mowing regime as described below, over a number of years this portion of your garden will become more and more flower-rich, and you won't even have to buy pollinator friendly plants or seed!



- 1 Wait until April to do the first grass cut to allow some Dandelions to flower
- 2 During the summer, allow the grass to grow long
- 3 Cut again in early September. If grass growth is very strong and the vegetation is falling over under its own weight, cut sooner e.g. July and again in September. After a few years as soil fertility is lowered, this earlier cut will no longer be necessary and one cut at the end of the summer will be enough
- 4 The grass cuttings should be removed after each cut to reduce soil fertility over time. If the area is large and accessible to a tractor, it can be baled for hay or haylage. Otherwise rake it off the area and compost it, use as mulch or dispose as green waste
- 5 **Optional extra:** collect wildflower seed locally and sow in trays and grow-on as small plants (plugs) which can be added to the meadow in spring and autumn. For more information see website: How-to-guide for using pollinator friendly wildflower seed

If you want your meadow to be more flower-rich, you can sow commercially bought seed. Just keep in mind that many sites are not suitable for seed mixes. **Note:** Only purchase seed mixes that have been grown in Ireland from native wildflowers, and contain pollinator friendly plants. Wildflower seed packets for sale in supermarkets often fail to meet these requirements. For more information see website: How-to-guide for creating and managing a wildflower meadow.

Info Box:
Fertilisers promote grass growth; avoid using them in any areas where you want wildflowers to grow

Pollinator Friendly Planting

C In order to survive, pollinators need flowers that produce lots of nectar (for energy) and pollen (for protein). If you want to make your garden pollinator friendly, the key is to avoid 'hunger gaps,' or times when there are no nectar or pollen-rich flowers in bloom. As an added benefit, if you always have something flowering in your garden to attract and feed pollinators, these insects will be there to visit your pollinator-dependent fruits and vegetables.

There are a huge variety of garden plants to choose from that are colourful, attractive, and can provide pollinators with the food they need.

Note: The suggested planting lists in this section are NOT exhaustive; many other plants are also good for pollinators. Never plant ornamental plants in natural or semi-natural habitats.

How do you know if a plant is pollinator friendly?

- Single instead of double flowered varieties: double flowered varieties provide almost no nectar and pollen for pollinators
- Perennials over annuals: perennial plants are generally better sources of pollen and nectar
- Do you see pollinators visiting it? When choosing plants to buy at a garden centre, you will quickly realise what flowers pollinators visit most. Also keep an eye out for the Royal Horticultural Society's "Perfect for Pollinators" logo, which is now used by many suppliers of garden plants



👉 Action 5:

Have pollinator friendly plants flowering in your garden from March-October

Many gardens have plenty of flowers in the summer, but providing food for pollinators in spring and autumn is hugely important. You can provide pollinators with flowers by allowing native wildflowers to grow naturally in your lawn, or through deliberate planting. See the table on page 8 for examples of the sorts of plants you can add to ensure there are flowers blooming in every season.



➤ Action 6:

Pollinator friendly window boxes/hanging baskets/patio pots

Incorporating some pollinator friendly plants in window boxes, hanging baskets or other containers can be done in any garden, but is particularly useful for homes with little outdoor space. Many pollinator friendly herbs also grow well in pots. Below are examples of pollinator-friendly annuals and perennials that do well in containers.



Annuals for window boxes

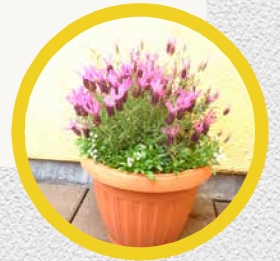
Alyssum 'Sweet White'
Floss Flower
Cosmos
Heliotrope 'Dwarf Marine'
Night scented stock
Poached egg plant

Perennials for window boxes

Aubrieta
Wallflower
Bellflower
Trailing Verbena

Herbs for pots

Borage
Chives
Lavender
Rosemary
Sage
Thyme



➤ Action 7:

Plant pollinator friendly bulbs to flower next spring

Daffodils and Tulips are not the best for pollinators. You don't have to replace these beloved plants, but this autumn why not try also planting some pollinator friendly bulbs? Examples include: Snowdrop (*Galanthus nivalis*, *Galanthus elwesii*); Crocus; Allium; Grape Hyacinth (*Muscari armeniacum*); and Single flowered Dahlia, especially Bishop series.



➤ Action 8:

Use green manures that are pollinator friendly

Green manure or 'cover crops' are plants grown specifically to be dug back into the soil to improve it for perennial planting. While in flower green manure plants can be great for pollinators, e.g. Buckwheat and Phacelia provide lots of pollen and nectar.



Info Box:

Traditional bedding plants like Geraniums, Begonias, Busy Lizzy, and Petunias have virtually no pollen and nectar and are of little value to pollinators

Pollinator friendly garden plants

Aim to have 3-5 different types of these plants flowering in your garden each season. These suggestions are **not** exhaustive; many other flowers are also good for pollinators. For more planting suggestions visit www.rhs.org.uk/perfectforpollinators.

		SPRING	SUMMER	AUTUMN
		March-May	June-Aug	Sept-Oct
	<p>Wildflowers in long grass</p> <p>These are examples of plants that will grow naturally in long grass; you do not need to buy seed or plants!</p>	<p>Dandelion Dead-nettle Vetch</p>	<p>Bird's foot trefoil Brassicas Clovers Geranium Knapweed Oxeye daisy Self-heal Speedwell Thistle Vetch Yarrow</p>	<p>Autumn Hawkbit Clovers Hawksbeard Vetch</p>
	<p>Ornamental plants and herbs</p>	<p>Comfrey Hellebores Lungwort Spring/winter Heather</p>	<p>Borage Calamint Catmint Columbine Delphinium Globe thistle Lavender Oregano Penstemon Poppy Scabious Stachys Sneezeweed Thyme Viper's bugloss</p>	<p>Aster Button Snakewort Coneflower Eupatorium Heathers Single Sunflowers^(Annual) Stonecrop</p>
	<p>Flowering trees/shrubs</p>	<p>Barberry (Berberis) Broom Crab apple Forsythia Hawthorn Mahonia Rowan Viburnum Wild cherry Willow</p>	<p>Bramble Cotoneaster Deutzia Firethorn Laburnum Rock Rose Viburnum</p>	<p>Hebe Ivy Russian Sage (sub-shrub)</p>
	<p>Fruit and Veg</p> <p>Many of the fruits and vegetables you grow in your garden need pollinators to produce seeds and fruit!</p>	<p>Apples Blueberries Cherry plum Currants</p>	<p>Blackberries Courgettes Field/runner beans Pumpkins Raspberries Strawberries Tomatoes</p>	

Info Box:
Letting a small portion of Brassica plants (e.g. Cabbage, Kale, Brussel sprouts) flower can help provide food for pollinators in your garden



D

Provide wild pollinator nesting habitat

In addition to food, pollinators also need safe places to nest. Nesting habitat for wild bees (bumblebees and solitary bees) is safe, unobtrusive and easy to create in your garden. Take some of the following actions to provide shelter for wild pollinators.



Bumblebee colonies nest in long grass or in abandoned rodent holes. Solitary bees nest in two ways: only a small number of Ireland's solitary bees (15 out of 77) nest in existing cavities like holes in stone walls, wood, or commercially available bee boxes. The rest are mining bees that burrow into bare ground or south/east facing earth banks. Wild bees are not aggressive, so it is perfectly safe to have them nesting in your garden.

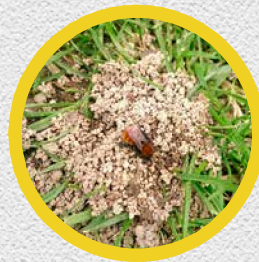
👉 Action 9:

Create nesting habitat for solitary mining bees

Solitary mining bees need areas of bare ground to be able to burrow into the soil and create their nests. Scrape away some grass in flat, sunny spots in your garden to create areas for these bees to nest.

Some mining bees prefer to nest on south or east facing slopes with bare ground; you can easily create these habitats in your garden using a spade. Scrape back any vegetation that grows on these earth banks manually each year, to ensure the spots remain bare.

For more information see website: [How-to-guide for creating wild pollinator nesting habitat](#)



➤ Action 10:

Create nesting habitat for cavity nesting solitary bees

There are many ways to create nesting habitats for the small number of Irish solitary bees that prefer to nest in existing cavities.

- 1 Some solitary bees nest in hollow stems of plants. If you grow raspberries, leave some of the old canes unpruned each year to provide habitats for these bees
- 2 Drill south or east facing holes in wooden fencing for solitary bees to nest in. These holes should be 10cm deep and range from 4-8mm in diameter. Add them at a height of at least 1.5-2m
- 3 Buy or make a solitary bee hotel for your garden

For more information see website: [How-to-guide for creating wild pollinator nesting habitat](#)



➤ Action 11:

Hedgerows for pollinators

Bumblebees often nest in the long grass at the base of flowering hedgerows. If you do not already have them in your garden, consider planting hedgerows made of flowering trees and shrubs such as Hazel, Willow, Blackthorn and Hawthorn. You can manage existing hedgerows for pollinators by:

- 1 Cutting on a three year rotation (outside the bird breeding season)
- 2 Avoid cutting all hedges in the same year so some are always flowering
- 3 Let the grass grow long at the base of the hedges, and be sure not to spray it. If these areas do need to be cut, do so between September and March to avoid disturbing nesting bees

For more information see website: [How-to-guide hedgerows for pollinators](#)



E

Eliminate pesticide use

Pesticides include insecticides, fungicides and herbicides. All of these can be harmful to pollinators, either directly, or by damaging the plants and habitats they depend on.



➤ Action 12:

Don't use insecticides on garden flowers and plants

Use alternative methods of pest control, such as manual barriers or physical removal. Try this approach for just one season, or on part of your garden, and see how much pest damage results; often levels will be very low.

Note: some seeds and plants are treated with systemic insecticides called neonicotinoids. Try reading the fine print to ensure the products you buy are not treated with these harmful chemicals.

➤ Action 13:

Don't use herbicide on your lawn

Lawns where some wildflowers are allowed to grow provide valuable food for pollinators. If some areas must be kept green, weed manually instead of spraying.

➤ Action 14:

Don't use herbicide on the verges outside your house

If left alone, road verges can provide important areas for pollinators to feed and nest.

No food



Food



➤ Action 15:

Ensure best practice where the use of pesticides cannot be avoided

If there are plants or areas in your garden that must be treated with pesticides, always follow the manufacturer guidelines exactly when applying.

- 1 Spot treat rather than blanket spray an entire area
- 2 Spray in dry conditions with low wind speed to prevent drifting
- 3 Spray after sunset to avoid direct contact of pollinators with chemicals

Info Box:

In addition to pollinating flowers, hoverflies can play an important role in controlling garden pests. Some hoverfly larvae feed on aphids, reducing or eliminating the need to spray.



Raise awareness of pollinators with family, friends and the local community

More people are starting to understand how important pollinators are and what we can do to help them, but we need to keep spreading the word, especially to the next generation.

➤ Action 16:

Junior Version of the All-Ireland Pollinator Plan

Download the Junior Pollinator Plan from our website and read it with your family. Community gardens could also promote the Junior Plan to local schools and youth groups.



➤ Action 17:

Share pollinator friendly plants

Plants and seed can be expensive, but for many pollinator friendly species, existing plants can be divided or new plants can be grown from cuttings. For fruit and vegetable plants, check to see if your local GIY group already has seed or cutting exchanges.



Five pollinator friendly plants that can be shared

- 1 **Lavender** Seed or cuttings
- 2 **Sage** Divide existing plants
- 3 **Thyme** Seed or cuttings
- 4 **Viper's Bugloss** Sow from seeds
- 5 **Willow** Hardwood cuttings



➤ Action 18:

Give the pollinator friendly property management sheet to your estates management company or residents association

If you live in an apartment or estate, your garden is probably maintained by a property management company or resident's association. There is a printable, one-page summary at the back of these guidelines that can be provided to these groups. Ask them to consider managing the land they are responsible for in a pollinator friendly way.



Tracking progress and recognition for efforts

Progress in the implementation of the All-Ireland Pollinator Plan 2015-2020 will be carefully tracked. A publically available mapping system will track pollinator friendly actions taken by everyone across the island and provide recognition to those that are helping.



➤ Action 19:

Add your garden to our publicly available mapping system, 'Actions for Pollinators'

'Actions for Pollinators' is a publically available online mapping system that allows everyone who takes pollinator friendly actions to log their efforts. Add your garden to this system to help us track the build-up of food, shelter and safety for pollinators in the landscape (www.pollinators.ie). This system can also be used to score each garden. See the box below to find out how your garden can achieve GOLD POLLINATOR STATUS.

How to make your garden GOLDEN for pollinators

In order to receive gold status, your garden must provide the best food, shelter and safety for pollinators by meeting the following three criteria:



1 Food: Have at least 5 different types of pollinator friendly plants flowering in each season- spring, summer and autumn (see table in section C for examples, although any pollinator friendly plants from the RHS perfect for pollinators list, www.rhs.org.uk/perfectforpollinators, will also count)



2 Shelter: Create nesting habitats for solitary bees. Some habitats in your garden must be suitable for both cavity nesting AND mining bees (see section D for more information)



3 Safety: Completely eliminate the use of all pesticides in your garden (see section E for more information)

➤ Action 20:

Learn to identify pollinators and record what is in your garden

Many of our pollinators can be identified easily when they are feeding on flowers. Visit the Pollinator Plan website to find resources for identifying the types of pollinators in your garden. You can also become part of the All-Ireland Bumblebee Monitoring Scheme. This is a citizen science initiative managed by the National Biodiversity Data Centre. Once a month, you walk a fixed route and record all the bumblebees you see. This information can be used to track changes in wild pollinators as the Pollinator Plan is implemented. If interested in taking part contact info@biodiversityireland.ie.



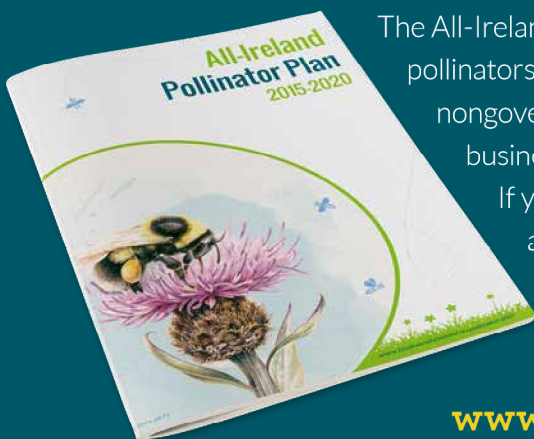
Pollinator friendly guide for estates management

Pollinators are important for our health, wealth and environment. If you have been given this sheet, the people living in the properties you manage are concerned about their local pollinators. Show them you care by taking these five no-cost measures to help pollinators:

- 1 Let the Dandelions bloom:** wait until late April to do the first grass cut. This allows some Dandelions to flower, providing bees with much needed food in the spring
- 2 Do not spray edging or bases of trees:** avoid using pesticides to tidy up these areas; strim instead, or let the grass here grow to provide pollinators with food
- 3 Protect hedgerows, dry stone walls and earth banks:** especially when south facing, these areas are important nesting sites for harmless solitary bees. Avoid using pesticides on these areas
- 4 Create a '6-week meadow':** cut small areas or strips of grass on a 6-week rotation to provide more wildflowers for pollinators
- 5** If you take any pollinator friendly measures, log them on the publically available mapping system, **'Actions for Pollinators.'** Let everyone know that your company is doing its part for pollinators www.pollinators.ie



Signage templates to inform the community that areas are being protected for pollinators can be downloaded from our website: www.biodiversityireland.ie/pollinator-plan



The All-Ireland Pollinator Plan 2015-2020 is a call to action to help our pollinators. This initiative is supported by over 68 governmental and nongovernmental organisations. During the implementation phase, businesses are actively being encouraged to sign up in support of the Plan. If you have taken some of the suggested pollinator friendly actions above and want your company to be listed as a supporter, get in touch: info@biodiversityireland.ie

www.biodiversityireland.ie/pollinator-plan





About the National Biodiversity Data Centre

The National Biodiversity Data Centre is a national organisation that collects and manages data to document Ireland's wildlife resource, and to track how it is changing.

Find out what biodiversity has already been recorded in your local area:

maps.biodiversityireland.ie

Help us to build up the knowledge of biodiversity in your local area by submitting sightings to **records.biodiversityireland.ie**

Text: Erin Jo Tiedeken & Úna FitzPatrick (National Biodiversity Data Centre), & Jane Stout (Trinity College Dublin)

Design: Vitamin Studio, Waterford

Thanks to Dara Stanley, Paul Dowding, Mary Montaut, Dee Sewell, Kay Synott & Hazel Proctor for input

Suggested citation: Gardens: actions to help pollinators. All-Ireland Pollinator Plan, Guidelines 2. National Biodiversity Data Centre Series No.9, Waterford. May, 2016.

An Chomhairle Oidhreachta
The Heritage Council



Bord Bia
Irish Food Board

Department of
**Agriculture,
Food and the Marine**
An Roinn
**Talmhaíochta,
Bia agus Mara**

Funding for implementation of the All-Ireland Pollinator Plan 2015-2020 has been provided by The Heritage Council & Bord Bia. Funding for the design of this guide was provided by the Department of Agriculture, Food and the Marine.

