

FACT SHEET

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Managing Farmland for Pollinators



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Managing farmland for pollinators

Bees and other insect pollinators play an essential role in our food production and in the balance of our environment - its plant and animal life. Approximately 1,500 insect species fulfil a pollination role in Wales including honeybees as well as many types of bumblebees, solitary bees, hoverflies, wasps, flies, butterflies, beetles and moths. They all face a wide range of environmental pressures such as intensification of land-use, habitat loss and fragmentation, parasites, predators and diseases, invasive alien species, use of pesticides and climate change.

To help our declining pollinators we need to:

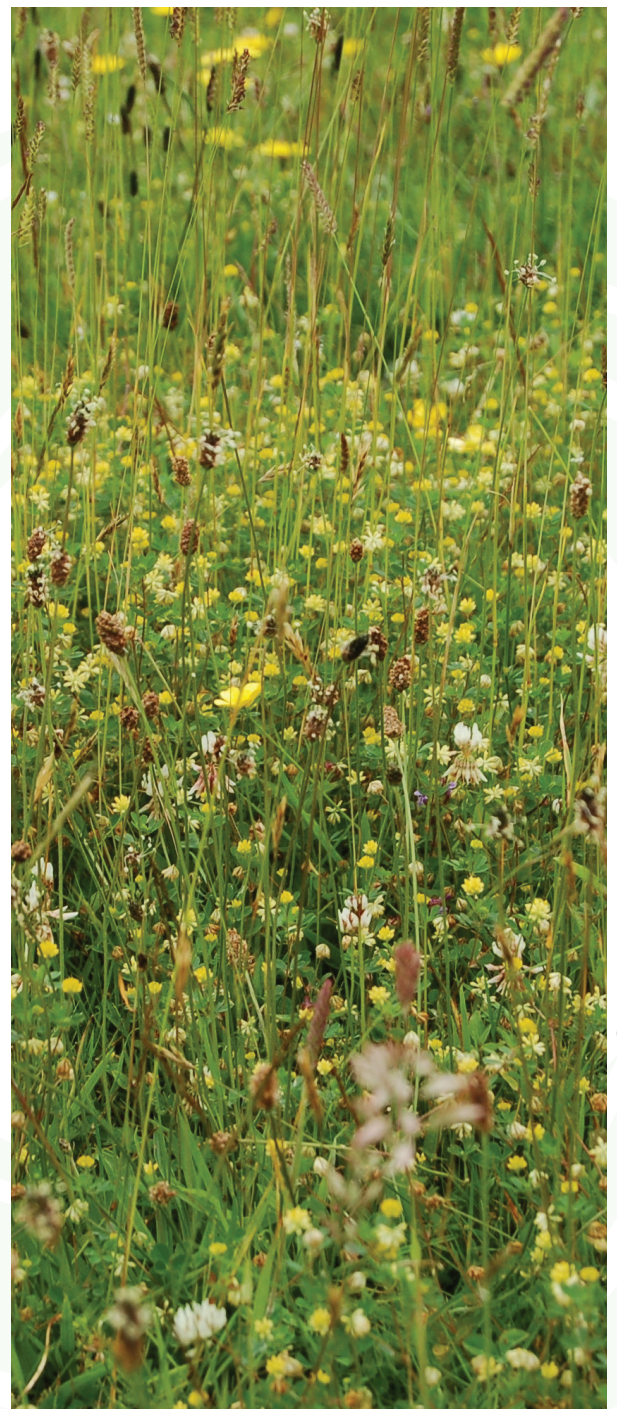
- Reduce habitat fragmentation and improve habitat connectivity in the landscape.
- Provide different types of habitat and places to nest and breed, forage for food and hibernation.
- Reduce cutting / grazing of fields and hedges where possible; many pollinating insect species need undisturbed areas for hibernation.
- Encourage people to grow pollen and nectar as well as larval food plants.



Grassland

Farmers and landowners - you can:

- Set-aside land for wildlife, this can be permanent or temporary, the larger the area the better for wildlife diversity. It can just be corners of fields fenced off from grazing, or strips not mowed every year.
- Create and manage flower rich habitats that are vital for the survival of our different pollinator species. Use native flowers such as taking a cutting of green hay, seed from nearby wild flower meadows or local provenance seed and spreading it across a prepared field that you want to enhance.
- With short-term leys, put in earlier flowering plants and clovers and extend the time until the first cut to allow these flowers to bloom. If this cannot be done for the entire field, enhance a strip around the edge, the size of your forage harvester, and leave this un-cut until the second silage cut.
- Graze cattle and sheep to no less than 5cm and mow less often to retain a diversity of plant species on your land. Rotate grazing during the summer to allow fields to flower and set seed.
- Try to leave areas of scrubland without mowing or ploughing rough grass, as this is vital habitat for many bees, butterflies and moths and for other animals & birds to breed and hibernate.
- Reduce input to fields where possible by avoiding artificial fertilisers; only very light spreading of farm yard manure. This helps the wild flowers grow whereas nitrogen fertilisers support the growth of grasses.
- If managing the field as a hay meadow, cut after mid-July, and rotate a late cut every three or four years. Alternatively if cutting mid July, leave wide un-cut margins around some fields to allow flowers to keep blooming throughout the summer and autumn.



Herb rich grass meadow (herb-richgrass) © Davey Martyn

Hedgerow and woodland management

- Manage hedgerows in ways that enable wild plants and hedgerow trees to produce flowers to provide forage for bees & other pollinators, and allow them to set fruits, seeds and nuts which can be used by birds and mammals.
- Plant new hedges of mixed species & allow them to flower. A good forage hedge with hedgerow trees would include hawthorn, hazel, dog rose, purging buckthorn, blackthorn, honeysuckle, holly, ivy, crab apple, willow, wild cherry and wild pear. Very early flowering plants such as willow, blackthorn and hawthorn in hedgerows and areas of scrub, bugle, dandelion, coltsfoot and wood anemone in woodland as many insects will emerge from hibernation and forage in warm bright weather at the beginning of the year.
- Manage hedgerows to preserve warm bare banks at the base for burrowing bees, especially if they are south-facing. Cut hedgerows between October and February. Only cut hedges on two year rotation as many species overwinter in old growth. This will also save costs.
- Sowing wild flowers along hedge lines or allowing tall weedy margins provides food for pollinators, but keep some bare ground as this provides important areas for pollinators to make their homes.



Shrill Carder Bee (*Bombus sylvarum*) © Michael J Clarke

Arable

- Annual arable flowers provide a vital source of pollen and nectar early in the year. Create annually cultivated un-cropped margins two to six metres along arable field edges during the spring or autumn, preferably at the top of slopes and on east, west or south facing fields. Leave these margins unsown so that the native wild flowers can grow – sowing a mixture will impede the growth of the wild annual flowers.
- Leave the margin in place throughout the summer, for the first flowering season May to September, until the following spring as the annual flowers, particularly dead-nettles and hemp-nettles, also flower again in February and March providing a vital source of nectar and pollen as pollinators emerge from hibernation.



Small Copper Butterfly

Other habitats

- Create south facing sandy banks for bees or areas of open bare ground as these make ideal nest sites for pollinators such as solitary bees. These should ideally be adjacent to wildflower habitats and other habitats such as hedges.
- Do not clear or cut ditch edges every year or clear half the ditch in one year and the other half the following year. When clearing the ditch a shallow shelf should be left along the edge just below the water to allow the marginal flowers and grasses to grow.
- Leave some cavities in walls, old bird nest boxes, shrubs, bare & undisturbed patches of ground for nesting and hibernation with leaf litter & rough grass. Pollinators need a home as well as food and all of these habitats are used by different insects.
- Be a little less tidy! Leave plants such as ivy around the farmyard, buildings and tracks as vital sources of pollen and nectar particularly later in the year once the fields are grazed or cut.
- Provide habitats that attract beneficial wildlife and native predators that eat the pests, for example wild flower margins provide the right habitat for many insects that perform a pest control function, as well as providing food for pollinators.

Spraying Pesticides

Practice 'Integrated Pest Management' (IPM) techniques. Always consider the use of alternative means of control before thinking about the use of a pesticide (including pesticide-treated seed). Remember:

- Monitor your crops regularly to identify any pest problems, and take action as necessary based on the results;
- Use pest thresholds, where possible, to determine the need for plant protection measures. Take action only when the thresholds have been exceeded;
- When measures are really needed use biological, physical and other non-chemical methods where possible;
- Where pesticides have to be used, choose products that are as specific as possible and have the least side effects. Plan to use as little as possible and only what you need.

If you do need to use a pesticide make sure that you protect bees and pollinators by:

- Informing the Welsh Beekeepers' Association 'Spraying Liaison Officers' in your area 48 hours before planning to use a pesticide at the times of the year when bees are at risk or whenever intending to use a pesticide that specifically harms bees. They will tell local beekeepers in time for them to take the necessary precautions. Remember to tell beekeepers if there is any change to your spraying plans.
- Not using pesticides labelled 'harmful', 'dangerous', 'extremely dangerous' or 'high risk' to bees if crops or weeds are in open flower or part bloom, unless this is allowed on the product label.
- Preventing drift over bee hives (even if they have been closed by the beekeeper) or into hedgerows or fields where bees may be foraging. Using low-drift spraying equipment to improve the targeting of your pesticide. Spray as low to the ground as possible and check nozzles regularly. It is safest to spray when it is cool and humid with a steady wind of 2 to 4 miles per hour blowing away from any sensitive areas.
- Spraying on a cool, cloudy day (below 10°C - this is the temperature below which bees and pollinating insects do not tend to forage).
- Checking if pollinators are visiting and remembering that honeydew produced by aphids is attractive to bees.
- Carefully follow the environmental protection instructions on the label and on the Environmental Information Sheet and guidance.
- Spraying later in the evening when bees have stopped flying (but remember that bumblebees may forage for food later into the evening than honeybees). This also allows several hours for the pesticide to dry before the bees become active again.

Further information

Improving conditions for pollinators throughout agricultural land is a key area for action, by providing more flowering plant species, and larger and better connected habitats. Glastir includes many pollinator friendly options on farm land such as woodlands and orchards, hedgerows and field margins.

Contact your local Beekeepers Association and talk to them about keeping bees yourself or hosting an apiary looked after by a local beekeeper, and get some honey in return.



Is spraying necessary? Newton Farm - Pembroke © Julie Bowes

Useful Links

- The Welsh Bee Keepers Association www.wbka.com
- The Code of Practice for Plant Protection Products www.pesticides.gov.uk/guidance/industries/pesticides/topics/using-pesticides/codes-of-practice/code-of-practice-for-using-plant-protection-products
- Glastir www.wales.gov.uk/topics/environmentcountryside/farmingandcountryside/farming/schemes/glastir
- Action Plan for Pollinators www.biodiversitywales.org.uk/en-GB/Wales-Action-Plan-for-Pollinators
- Integrated Pest Management Plan www.voluntaryinitiative.org.uk
- Saving Our Magnificent Meadows www.magnificentmeadows.org.uk
- Buglife www.buglife.org.uk
- Bumblebee Conservation Trust www.bumblebeeconservation.org
- The Wildlife Trusts www.wildlifetrusts.org
- Plantlife www.plantlife.org.uk
- CywainGwenyn www.cywain.com
- The International Bee Research Association www.ibrabee.org.uk
- The Wildlife Gardening Forum www.7wells.co.uk

Contact

For more information on Farming Connect services and events, contact us:

PHONE

01970 636565

E-MAIL

farmingconnect@menterabusnes.co.uk

WEBSITE

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