

Pollinator management for your farm business



**CAMPAIGN
FOR THE FARMED
ENVIRONMENT.**



The Campaign for the Farmed Environment (CFE) is encouraging farmers and land managers across England to protect and enhance the environmental value of farmland, through environmental measures that sit alongside productive agriculture.

CFE helps farmers and land managers choose the right environmental measures, put them in the right place and manage them in the right way – to protect soil and water, as well as benefit wildlife.

CFE is a partnership approach supported by many organisations engaged in agriculture and the environment. By working with the CFE, voluntary industry-led initiatives demonstrate how the industry collectively takes responsibility for addressing environmental issues alongside profitable farming.

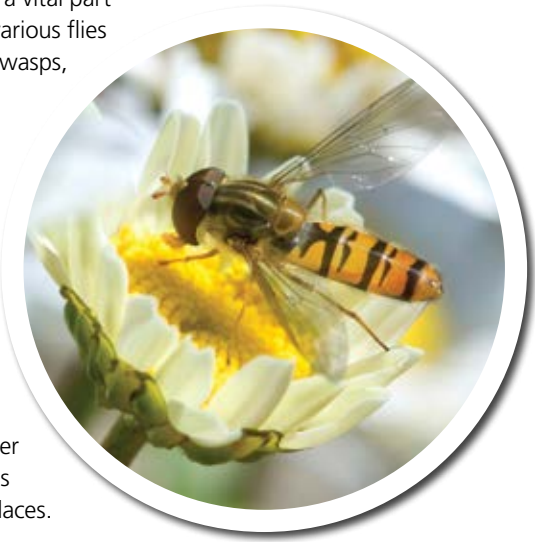
CFE wants to help ensure pollinators are valued and managed within farm businesses. By including CFE Voluntary Measures on fallow or unproductive land, you will benefit pollinators, as well as a range of other wildlife.

Finding food and a home (sites for nesting and hibernation) is a challenge that faces all pollinators. Farming can provide these resources by taking-up relevant voluntary measures under the CFE.

By encouraging pollinators, farmers and growers can also improve crop productivity and quality.

Pollen and nectar are a vital part of the diet for bees, various flies and midges, beetles, wasps, bugs, butterflies and moths.

This advice focusses on wild pollinators (including bumblebees, solitary bees and hoverflies), as farmers can encourage these species by providing food in spring, summer and autumn as well as nesting and resting places.



By implementing the following CFE Voluntary Measures you will provide food and a home for pollinators:

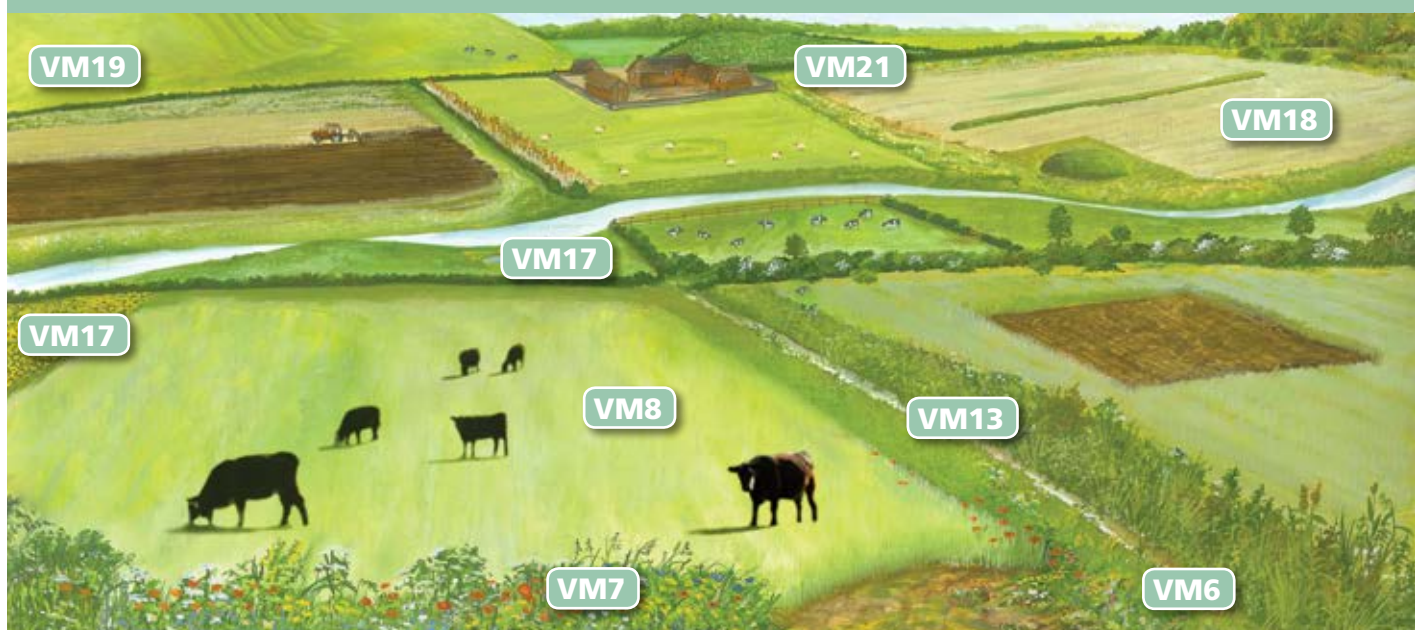
- Sow a wildflower or a pollen and nectar mix to provide food and energy (VM6 & VM7)
- Provide legume and herb rich temporary grass to provide enhanced food supplies and habitat (VM8)
- Leave cereal headlands unsprayed and/or unfertilised (VM13)
- Uncultivated field corners create habitat for pollinators (VM17)
- Provide fertiliser-free permanent pasture (VM19)
- Reduce the use of spring herbicide use on land to encourage a diverse range of non-competitive weeds in

the crop (VM21)

- Create a beetlebank (VM18) – grass mounds that run through the middle of large fields

A good habitat for pollinators includes:

- Widespread and varied flowering plants,
- The right types of plants (some flowers are the wrong shape for bees to access and some don't produce enough pollen or nectar).
- Food early in the year (when colonies are established) and later in the year (when pollinators are preparing for hibernation).
- Suitable nesting and hibernation sites.



What you can do

1. Provide summer food

Pollinators require both pollen and nectar-rich flowers to provide food throughout their nesting season from March until September:

- **Nectar is Fuel:** Nectar from flowers is high in sugar and is used by pollinators as a source of fuel. The sugar attracts pollinators to the plant. Good flower species for nectar include knapweed and scabious
- **Pollen is Food:** Pollen provides protein and nutrients and is used by pollinators to feed their young. Pollen is also used by the plant for fertilisation to produce seed. Good sources of pollen include: red clover, yellow rattle and birds foot trefoil

Pollinators are insects that transfer pollen from the male anthers of wild and crop flowers to the female stigma, enabling the flower to set seed and fruit.

On arable farms, a flower-rich margin on at least 1% of your land will help support pollinators. This could be done by allowing arable plants in the seed bank to seed, establishing perennial margins with a grass and wildflower mix, or using nectar flower mixes. Improving the connections between these features on your farm will also help wildlife move across the landscape. Crops contribute habitat and nectar supply for certain parts of the year, flower mixes provide food sources for pollinators when crops aren't flowering.

On livestock and dairy farms, look after existing flower rich areas, such as any areas of less improved grassland. Consider increasing plant diversity sown in grass leys on areas such as headlands or where there will be short runs when mowing. Alternatively, establish small flower-rich areas. This may include encouraging native plants on less fertile grassland areas or cultivating margins to stimulate germination of arable plants in the seed bank.

2. Provide food in spring & autumn

Many pollinators are active from early spring until late summer. Many conservation efforts focus on providing pollen and nectar for workers

in the summer, although many pollinators are probably more sensitive during the period when they are forming nests in the spring.

For example, helping bumblebee queens early in the year is rewarded as it encourages the foundation of bumblebee colonies and helps establish a robust local population which will pollinate crops later in the year.

By protecting, encouraging or planting a variety of spring, summer and autumn flowering plants you can provide excellent pollinator food sources.

Landscape features are also important to pollinators, you can help pollinators by:

- Managing **hedgerows** to boost flowering of hawthorn and blackthorn before other pollen and nectar sources are available by trimming on a two or three-year rotation. Consider increasing diversity of hedges by including a variety of flowering shrubs typical of the local landscape when gapping up.
- Planting suitable **nectar trees** where the landscape is suitable.

3. Provide a home

Wild pollinators also need sites to create nests and for hibernation. Some species prefer to nest above ground in thick vegetation, so hedgerows and areas of tussocky grass are valuable. Others nest underground, often using disused mammal holes, so creating an area where small mammals can create burrows (for example dry ditches or banks of earth) will benefit pollinators as well as the small mammals.

Some pollinator species also hibernate. Some research suggests that pollinators prefer to hibernate in north-facing banks, where they dig into vegetation and loose soil. In this soil they form a small chamber, in which they spend the winter.

By implementing some of these CFE measures, farmers can help to support the delivery of elements of the **National Pollinator Strategy**. This Strategy sets out the UK Government's plan to make sure pollinators thrive, providing essential pollination services and benefits for crop production, the wider environment and everyone.

Plants for Pollinators:

Spring & Summer

Flowering Wildflowers:

- Red campion
- Bird's foot trefoil
- Bugle
- Comfrey
- Selfheal
- Poppy
- Cowslip
- Vetches
- Red and white dead-nettle
- Foxglove
- Yellow rattle
- Cat's ear

- Angelica

- Ground ivy
- Woundwort
- Betony

Summer & Autumn Flowering Wildflowers

- Red & white Clovers
- Bird's foot trefoil
- Bramble
- Comfrey
- Burdock
- Teasel
- Knapweed
- Vetches

- Cornflower
- Field scabious
- Viper's bugloss
- Cat's ear
- Angelica

Trees:

- Field maple
- Small-leaved lime
- Orchard trees (apple, pear, cherry, medlar, quince)
- Alder
- Crab apple
- Hazel

- Hawthorn
- Holly
- Maple
- Rowan
- Sweet chestnut
- Whitebeam

Shrubs:

- Willows, especially goat willow, grey willow and crack willow
- Dogwood
- Wild privet
- Hawthorn
- Blackthorn

Working in partnership

Encouraging farmers and land managers to protect and enhance the environmental value of farmland alongside productive agriculture. Protecting wildlife, protecting natural resources, enhancing biodiversity

Campaign for the Farmed Environment partners – Agriculture & Horticulture Development Board, Agricultural Industries Confederation, Association of Independent Crop Consultants, Central Association of Agricultural Valuers, Country Land and Business Association, Environment Agency, Game and Wildlife Conservation Trust, Linking Environment And Farming, Natural England, National Farmers Union, RSPB, The Wildlife Trusts – working in partnership with Defra.

Web: www.cfeonline.org.uk

Twitter: @cfeonline



The Voluntary Initiative (VI) promotes responsible pesticide use by encouraging operator training through NR0SO, sprayer testing via NSTS and careful management of pesticides using an integrated approach supported by BASIS registered advice.

www.voluntaryinitiative.org.uk



Tried & Tested, (created by the industry for the industry), provides tools and resources designed to assist farmers and their advisers in improving farm nutrient management in an environmentally friendly, cost effective and practical way.

www.nutrientmanagement.org



The industry-wide Greenhouse Gas Action Plan (GHGAP) for agriculture focuses on improving resource use efficiency in order to enhance business performance whilst reducing GHG emissions from farming.

<http://bit.ly/11VFi1T>

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This guide outlines the best practice that should be used to establish areas for pollinators.

Best practice should also include managing field operations such as fertiliser spreading and spray applications.

Tried & Tested can provide advice on effective nutrient management planning.

The Voluntary Initiative can provide advice on responsible pesticide use, including using an Integrated Pest Management approach to keep pests, weeds and diseases under control. If you do use pesticides, follow best practice when choosing and applying them, so as to reduce risks to pollinators.

Many of the measures in this guide will provide significant benefits for other farm wildlife, as well as protecting soil and water. Further advice is available in other CFE guides. These are available on the CFE website or from your local CFE coordinator and include:

- **Conservation management advice for your arable business**
- **Conservation management advice for your livestock business**
- **Soil management for your farm business**
- **Nutrient management for your farm business**

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