The conservation charity helping farms to bee more attractive

Tuesday 18 May, 2021

Thursday 20 May marks the fourth annual **World Bee Day**
and is a timely reminder that more than 75% of the world's food crops depend on pollination. This year's theme, set by the UN, is 'Bee engaged – Build Back Better for Bees'. For gardeners, this could mean planting a diverse range of pollen and nectar-rich plants or creating an insect hotel. These small-scale changes can make a difference, but with three-quarters of the UK managed for farming, this is where the real opportunity lies.

In recent years famers have been encouraged, through agri-environment schemes, to provide more habitats for pollinators. But much of the focus has been on bumblebees, yet these make up only around 10% of the total number of bee species in the UK. As a result, the flower-rich habitats on farms have become good at supporting these species but are not attractive to other wild bee species.

Research led by the Game & Wildlife Conservation Trust (GWCT) is aiming to change this. Thomas Wood, a PhD student working with the charity, examined the relationship between the diversity of plants on farmland and the diversity of bee species. His study recorded 104 bee species (15 bumblebees, 89 solitary bees): almost half of the bee species that can be found in southern England. The results showed a strong correlation between the diversity of plants and bee species, clearly indicating that if the range of plants is increased then the bees will follow. In another study Thomas found that farms with just 2.2% of their land sown with flower-rich habitats had twice as many bumblebee colonies, demonstrating the effectiveness of including measures for pollinators on farms.

Rachel Nichols, another PhD student supported by the GWCT's Head of Farmland Ecology, Professor John Holland, looked at bee behaviour on 45 wildflower species being grown in blocks to provide wildflower seeds. She wanted to understand what happens when the flowers are superabundant. She found that 99% of all the sightings of bees foraging were on just 14 of the flower species. And of the 40 wild bee species recorded in the study, 37 of them visited those 14 flowers to forage.

The flower seed mixes that are currently suggested by Defra either as the nectar flower mix or the flower-rich margin/plot mix, contain only one each of the 18 species Rachel found to be most attractive.

GWCT research shows that the ideal mix for bees includes some weed species that farmers might prefer not to encourage, such as bindweed, charlock, and perennial sow-thistle, but there were many species that proved attractive to solitary bees that could be added. These include smooth hawksbeard, primrose, and wild carrot. Rachel is now trialling new seed mixes to look at how well they establish and whether the plants are still as attractive when sown as part of a mix and comparing them to the existing Defra recommendations.

The GWCT's commitment to bee research led the charity to launch the BEESPOKE project. Funded by the EU Interreg programme, North Sea Region, the scheme brings together 16 project partners across Northern Europe. Through the project, pilot farms will test out crop-specific seed mixes and management methods for 14 crop types across 72 demonstration sites. The region has been identified as having a very low pollination potential due to the loss of flower-rich habitats, such as meadows, while other habitats such as hedgerows have become degraded. This is also having an impact on the pollination of wild plants. Previous GWCT-supported research showed that hedgerow plants such as hawthorn and blackthorn produced few fruits in the absence of insect pollinators. Pollinator declines, therefore, have serious implications for the survival of wild plants and also the animals that depend on the resources they provide such as seeds and fruit.

Free BEESPOKE pollinator field guides

For World Bee Day 2021 the GWCT is launching two new BEESPOKE field guides to help farmers and growers interested in monitoring pollinators on their crops or other flowering habitats. The first guide shows how to identify the main groups of pollinators and how to conduct a pollinator survey. The second describes how to identify some of the most common bumblebees in the UK. Both are free to download at https://northsearegion.eu/beespoke/publications-downloads/

Key bee facts

Media:



Related Sectors:

Charities & non-profits :: Environment & Nature :: Farming & Animals :: Food & Drink :: Home & Garden ::

Related Keywords:

Bees :: Pollinators :: Pollination :: Conservation :: GWCT :: Research :: Food Production :: Farming :: Farmers ::

Scan Me:

- 200,000 bee species recorded so far across the world with 270 in the UK, many are in decline
- 1/3 food we eat would not be available without bees.
- Up to £600 million - the annual economic value of bees as pollinators in the UK.
- Wild bees are responsible for pollinating 90% of the UK's insect-pollinated crops.
- Pollen and nectar need to be on offer for 8 months of the year for bees to flourish.

Notes to editors

The Game & Wildlife Conservation Trust – providing research-led conservation for a thriving countryside. The GWCT is an independent wildlife conservation charity which has carried out scientific research into Britain's game and wildlife since the 1930s. We advise farmers and landowners on improving wildlife habitats. We employ 22 post-doctoral scientists and 50 other research staff with expertise in areas such as birds, insects, mammals, farming, fish and statistics. We undertake our own research as well as projects funded by contract and grant-aid from Government and private bodies. The Trust is also responsible for several Government Biodiversity Action Plan species and is lead partner for grey partridge and joint lead partner for brown hare and black grouse.

ISDN radio broadcast line - at our Fordingbridge HQ we have an ISDN radio broadcast line, allowing us to conduct interviews remotely.

Company Contact:

Game & Wildlife Conservation Trust

E. press@gwct.org.uk
W. https://www.gwct.org.uk/

View Online

Additional Assets:

Newsroom: Visit our Newsroom for all the latest stories:
https://www.gwct.pressat.co.uk