



May 2020 (RPC PB 2020/01)

Recommendations to ensure the CAP post-2020 supports insect pollinators 1

Lorna J. Cole², David Kleijn, Lynn Dicks, Jane Stout, Simon Potts, Koos Biesmeijer, Jeroen Scheper

Overview: Insect pollinators continue to decline in Europe despite the Common Agricultural Policy's increased focus on environmental protection. Pollinator experts from across Europe identified a need to improve the quality of wildlife habitats through more targeted management and a robust monitoring framework. With specific habitats typically not providing all resources pollinators require, landscape level initiatives are required that support a variety of habitats that are complementary in resources offered.

Summary

- Pollinators face multiple pressures and as a result these economically important insects continue to
 decline in Europe. Pollinators need a range of resources include floral-rich habitats to forage, nesting
 sites and breeding sites and these resources typically occur in different habitats.
- In setting aside a proportion of farmland to ecologically beneficial habitats and landscape features, Ecological Focus Areas³ (EFAs) have huge potential to protect pollinators and provide wider environmental benefits.
- Pollinator experts from across Europe evaluated EFAs and found these were currently failing to provide all the resources pollinators require in sufficient quantities.
- EFA options differed in the amount and type of resources they offered and this varied across Europe. Even when specifically managed for pollinators, most EFA options failed to provide all resources pollinators need.
- Experts identified substantial opportunities to improve the quality of EFA options. They recommend that the CAP puts a greater emphasis on creating high quality habitats that are evaluated by a comprehensive monitoring framework.
- To deliver the CAP post-2020's Green Architecture ⁴ effectively, landscape level initiatives are required to spatially target options to ensure all resources pollinators require are locally available.

Policy Implications

Improve Habitat Quality



- Incentivise positive management through results-based schemes
- •Create an effective monitoring framework with target-orientated indicators
- Produce regional guidelines on pollinatorfriendly management for specific habitats
- •Encourage Integrated Pest Management to better target pesticide application

Enhance Landscape Diversity

- Support landscape scale intiatives that provide combinations of habitats that are complementary in resources offered
- •Integrate Green Architecture delivery vehicles
- Incentise farmers to support pollinator habitat packages on their farm (e.g. through results-based schemes)

¹ Horizon 2020 EU COST-Action FA1307 (<u>Super-B</u>). Scottish Government Rural Affairs and the Environment Strategic Research Programme 2016-2021 and Research Excellence Grant.

² Lorna J. Cole, Rural Economy Environment and Society Department, SRUC Lorna.Cole@sruc.ac.uk

³ EFAs are a set of defined habitats and landscape features to provide ecologically beneficial areas in arable cropping systems

⁴ Green architecture elements include eco-schemes, conditionality and agri-environment-climate schemes

Introduction

Pollinating insects face a range of pressures including climate change and the loss of high quality habitats as a result of agricultural intensification. Consequently, in some parts of Europe pollinators are now struggling to find the resources they require.

While comprehensive data on the status of many species are lacking, available evidence suggests that pollinators continue to decline in many parts of Europe, despite significant investment in agri-environment schemes.

84% of European crops benefit from insect pollination ⁵ and these crops provide vitamins and minerals vital to human wellbeing. The conservation of pollinators in agricultural landscapes is therefore critical to food security.

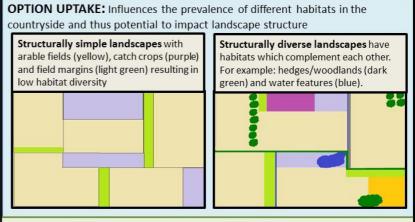
To inform the CAP Post-2020 in the implementation of its Green Architecture, pollinator experts undertook an evaluation of Ecological Focus Areas⁶.

Key findings

Habitat Quality: Experts identified substantial opportunities to improve the abundance and diversity of resources that biodiverse habitats and landscape features provide through adopting pollinator-friendly management.

Landscape diversity: Current uptake bias of EFA options towards nitrogen-fixing crops and catch crops resulted in perceived shortages in bee nesting sites, late season forage and resources for hoverfly larvae. With most habitats failing to provide the full range of resources pollinating insects require, a diversity of habitats are required to meet resource requirements.





HABITAT QUALITY: Establishment, age & management of wildlife habitats will impact on the diversity, quality and type of resources provided





HABITAT TYPE: Habitats differ in their inherent capacity to provide specific resources which can vary temporally & geographically

Field margins: Forage throughout season East & South; mid-season N&W

Ditches: Hoverfly larvae resources across Europe



- Management guidelines on how to improve EFA habitats for pollinators
- Detailed evaluations of the pollinator resources provided by each EFA habitats alongside information on how these resource vary across Europe

For more information on the work of SRUC's Rural Policy Centre, please contact the team on:

T: 0131 535 4256; E: rpc@sruc.ac.uk; W: www.sruc.ac.uk/ruralpolicycentre

⁶ Cole, L.J. et al. 2020. A critical analysis of the potential for EU Common Agricultural Policy measures to support wild pollinators on farmland. *Journal of Applied Ecology*, 57, 681–694.





Williams, I.H. 1994. The dependence of crop production within the European Union on pollination by honey bees. *Agricultural Zoology Reviews*, 6, 229–257.