



## Multispecies leys

Selection and management to support pollinators

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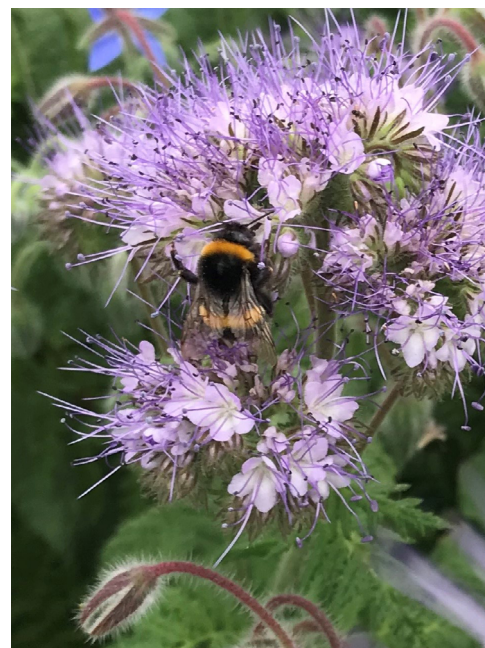
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- LegLINK

Multispecies leys have combined benefits for soil fertility, forage production and pollinator foraging<sup>1</sup>. With pollinators supporting reproduction within 35% of the world's food crops<sup>2</sup>, incorporating multispecies leys within arable rotations provides a useful strategy to increase the abundance and diversity of pollinators on farm.

Within leys, species selection is important, and mixes can be tailored to increase floral diversity, nitrogen availability and forage quality. The LegLINK project (2009 - 2012) created an all species mix of 10 legume species and 4 grass species, with beneficial effects on pollinators. In addition, the project developed 4 common principles to be considered when forming a farm specific mix; (1) long flowering duration, (2) use at least 8 species, (3) include preferably 4 legumes, (4) include both grasses and herbs.

The management of the ley will also influence pollinator populations as the mix needs to be given time to flower. Heavy stocking rates and multiple cuts can affect both the diversity and duration of flowering plants and so should be avoided when trying to increase pollinator populations.



A visiting Bumble Bee, benefiting from the implementation of agri-environmental practices

Bee density on farm is known to correlate with floral resources. By selecting plants with long or converging flowering times, management practices can enable sufficient resources throughout the year. Current agri-environment schemes have helped support pollinators by encouraging the uptake of environmentally friendly practices. Recent work<sup>3,4</sup> demonstrates that the implementation of environmentally friendly practices does have beneficial effects on the abundance and diversity of bees on farm, especially when nectar flower mixes are used.

## FURTHER READING

1. Döring *et al.* (2012) [tinyurl.com/m44hm79c](https://tinyurl.com/m44hm79c)
2. Klein *et al.* (2007) [doi.org/10.1098/rspb.2006.3721](https://doi.org/10.1098/rspb.2006.3721)
3. Crowther & Gilbert (2020) [doi.org/10.1016/j.jnc.2020.125895](https://doi.org/10.1016/j.jnc.2020.125895)
4. Wood (2017) [sro.sussex.ac.uk/id/eprint/66427](https://sro.sussex.ac.uk/id/eprint/66427)