

Broad bean: wildflowers for crop pollinators

Sarah E. J. Arnold, Michelle T. Fountain



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Major UK pollinators of broad bean are likely to include:

Pollinating bees	<i>Bombus hortorum</i>	Garden bumblebee
	<i>Bombus pascuorum</i>	Common carder bee
	<i>Bombus pratorum</i>	Early bumblebee
	<i>Andrena wilkella</i>	Wilke's mining bee
	<i>Andrena labialis</i>	Large meadow mining bee
	<i>Andrena cineraria</i>	Ashy mining bee
BUT nectar robbing bees!	<i>Bombus terrestris</i> and <i>lucorum</i>	Buff-tailed and white-tailed bumblebee – notorious for robbing flowers
	<i>Bombus lapidarius</i>	Red-tailed bumblebee

See table to the right for a selection of wildflowers that can help support this crop's pollinators.

However, some wild plants are potential hosts of:

- a = melon-cotton aphid;
- b = Botrytis;
- c = European tarnished plant bug;
- f = cabbage stem flea beetle;
- g = common green capsid;
- o = ornate (violet) aphid;
- p = potato aphid;
- s = strawberry blossom weevil;
- t = tobacco thrips;
- v = Verticillium wilt



Consult seed companies for the species which best suit your growing conditions.



Perennials	Alsike Clover	<i>Trifolium hybridum</i>	a,c,g
	Bird's-foot Trefoil	<i>Lotus corniculatus</i>	
	Black Knapweed	<i>Centaurea nigra</i>	b,c
	Comfrets	<i>Symphytum spp.</i>	
	Dandelions	<i>Taraxacum officinale agg.</i>	a,b,c,s,t
	Hedge Woundwort	<i>Stachys sylvatica</i>	
	Herb Robert	<i>Geranium rovertianum</i>	
	Lesser Trefoil	<i>Stellaria graminea</i>	
	Oxeye Daisy	<i>Leucanthemum vulgare</i>	a,b,c
	Purple Toadflax	<i>Linaria purpurea</i>	b
	Red Clover	<i>Trifolium pratense</i>	b,c
	Sage	<i>Salvia officinalis</i>	b
	White Clover	<i>Trifolium repens</i>	b,c,g
	White Deadnettle	<i>Lamium album</i>	c
Annuals	Borage	<i>Borago officinalis</i>	
	Field Poppy	<i>Papaver rhoeas</i>	c
	Yellow Rattle	<i>Rhinanthus minor</i>	
Variable	Foxglove	<i>Digitalis purpurea</i>	b,c
	Kidney Vetch	<i>Anthyllis vulneraria</i>	
	Houndstongue	<i>Cynoglossum officinale</i>	
	Spear Thistle	<i>Cirsium vulgare</i>	
	Viper's Bugloss	<i>Echium vulgare</i>	

How these tables were compiled:

1. A literature search and assembly of published and unpublished data sets of insects recorded visiting this crop in the UK.
2. The insects were ranked by number of crop visits/visitors in each data set and aggregate weighted ranks were created that take into account the same insects dominating multiple data sets.
3. For each of these insects, data on their wildflower visit activity in the UK and wider north-western Europe was assembled using existing literature.
4. These data sets were ranked by frequency of interaction and aggregate ranks produced.
5. Plants were removed from the ranks if they were woody/trees, bulbs, not native or naturalised non-native.
6. A further literature search assembled a list of wildflower-pest and wildflower-disease associations for pests and pathogens of key UK crops, to highlight any plants that may carry pest/disease risk (however slight).

The BEESPOKE project (Benefitting Ecosystems through Evaluation of food Supplies for Pollination to Open up Knowledge for End users) aims to increase levels of pollinators and crop pollination at local and landscape scales by providing land managers and policy makers with new expertise, tools and financial knowledge to create more sustainable and resilient agroecosystems.

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