

List of crop plants pollinated by bees

Pollination by insects is called entomophily. Entomophily is a form of pollination whereby pollen is distributed by insects, particularly bees, Lepidoptera (e.g. butterflies and moths), flies and beetles. Note that honey bees will pollinate many plant species that are not native to areas where honey bees occur, and are often inefficient pollinators of such plants.

Please note that plants that require insect pollination to produce seeds do not necessarily require pollination to grow from seed into food. The carrot is an example.

Common name	Latin name	Pollinator	Commercial product of pollination	Pollinator impact	number of honey bee hives per acre	Geography of cultivation
Okra	<i>Abelmoschus esculentus</i>	Honey bees (incl. <i>Apis cerana</i>), Solitary bees (<i>Halictus</i> spp.)	fruit	2-modest		temperate
Kiwifruit	<i>Actinidia deliciosa</i>	Honey bees, Bumblebees, Solitary bees	fruit	4-essential		
Bucket orchid	<i>Coryanthes</i>	Male <i>Euglossini</i> bees (Orchid bees)				
Onion	<i>Allium cepa</i>	Honey bees, Solitary bees	seed			temperate
Cashew	<i>Anacardium occidentale</i>	Honey bees, Stingless bees, bumblebees, Solitary bees (<i>Centris tarsata</i>), Butterflies, flies, hummingbirds	nut	3-great		tropical
Atemoya, Cherimoya, Custard apple	<i>Annona squamosa</i>	Nitidulid beetles	fruit	4-essential		tropical
Celery	<i>Apium graveolens</i>	Honey bees, Solitary bees, flies	seed			temperate
Strawberry tree	<i>Arbutus unedo</i>	Honey bees, bumblebees	fruit	2-modest		
American Pawpaw	<i>Asimina triloba</i>	Carrion flies, Dung flies	fruit	4-essential		temperate
Carambola, Starfruit	<i>Averrhoa carambola</i>	Honey bees, Stingless bees	fruit	3-great		tropical
Brazil nut	<i>Bertholletia excelsa</i>	Bumblebees, Orchid bees (<i>Euglossini</i>), Carpenter bees	nut	4-essential		tropical
Beet	<i>Beta vulgaris</i>	Hover flies, Honey bees, Solitary bees	seed	1-little		temperate
Mustard	<i>Brassica alba</i> , <i>Brassica hirta</i> , <i>Brassica nigra</i>	Honey bees, Solitary bees (<i>Osmia cornifrons</i> , <i>Osmia lignaria</i>)	seed	2-modest		temperate
Rapeseed	<i>Brassica napus</i>	Honey bees, Solitary bees	seed	2-modest		temperate
Broccoli	<i>Brassica oleracea</i> cultivar	Honey bees, Solitary bees	seed			temperate
Cauliflower	<i>Brassica oleracea</i> Botrytis Group	Honey bees, Solitary bees	seed			temperate
Cabbage	<i>Brassica oleracea</i> Capitata Group	Honey bees, Solitary bees	seed			temperate

Brussels sprouts	<i>Brassica oleracea</i> Gemnifera Group	Honey bees, Solitary bees	seed			temperate
Chinese cabbage	<i>Brassica rapa</i>	Honey bees, Solitary bees	seed			temperate
Turnip, Canola	<i>Brassica rapa</i>	Honey bees, Solitary bees (<i>Andrena ilderda</i> , <i>Osmia cornifrons</i> , <i>Osmia lignaria</i> , <i>Halictus</i> spp.), flies	seed	3-great	1	temperate
Pigeon pea, Cajan pea, Congo bean	<i>Cajanus cajan</i>	Honey bees, solitary bees (<i>Megachile</i> spp.), Carpenter bees	seed	1-little		
Jack bean, Horse bean, Sword bean	<i>Canavalia</i> spp.	Solitary bees, Carpenter bees (<i>Xylocopa confusa</i>)	seed	2-modest		
Chile pepper, Red pepper, Bell pepper, Green pepper	<i>Capsicum annuum</i> , <i>Capsicum</i> <i>frutescens</i>	Honey bees, stingless bees (<i>Melipona</i> spp.), bumblebees, solitary bees, hover flies	fruit	1-little (pollinators important in green houses to increase fruit weight, but less in open fields)		
Papaya	<i>Carica papaya</i>	Honey bees, thrips, large sphinx moths, Moths, Butterflies	fruit	1-little		
Safflower	<i>Carthamus</i> <i>tinctorius</i>	Honey bees, Solitary bees	seed	1-little		
Caraway	<i>Carum carvi</i>	Honey bees, Solitary bees, flies	seed	2-modest		temperate
Chestnut	<i>Castanea sativa</i>	Honey bees, Solitary bees	nut	2-modest		temperate
Star apple, Cainito	<i>Chrysophyllum</i> <i>cainito</i>	Insects, bats	fruit	1-little		tropical
Watermelon	<i>Citrullus lanatus</i>	Honey bees, bumblebees, solitary bees	fruit	4-essential	1-3	temperate
Tangerine	<i>Citrus reticulata</i>	Honey bees, bumblebees	fruit	1-little		sub-tropical
Tangelo	<i>Citrus</i> spp.	Honey bees, Bumblebees	fruit	1-little		sub-tropical
Coconut	<i>Cocos nucifera</i>	Honey bees, Stingless bees	nut	2-modest		tropical
Coffea spp. Coffea arabica, Coffea canephora	<i>Coffea</i> spp.	Honey bees, Stingless bees, Solitary bees	fruit	2-modest		tropical
Cola nut	<i>Cola nitida</i> , <i>Cola</i> <i>vera</i> , <i>Cola</i> <i>acuminata</i>	flies	nut	3-great		
Coriander	<i>Coriandrum</i> <i>sativum</i>	Honey bees, Solitary bees	seed	3-great		
Crownvetch ^[1]	<i>Coronilla varia</i> L.	Honey bees, Bumblebees, Solitary bees	seed (increased yield from pollinators)			temperate
Hazelnut	<i>Corylus cornuta</i> var. <i>californica</i>	Wind pollinated.	nut			temperate
Azarole	<i>Crataegus azarolus</i>	Honey bees, Solitary bees	fruit	1-little		
Cantaloupe, Melon	<i>Cucumis melo</i> L.	Honey bees, Squash bees, bumblebees, Solitary bees (<i>Ceratina</i> spp.)	fruit	4-essential	2-4	temperate

Cucumber	<i>Cucumis sativus</i>	Honey bees, Squash bees, Bumblebees, Leafcutter bee (in greenhouse pollination), Solitary bees (for some parthenocarpic gynoeocious green house varieties pollination is detrimental to fruit quality)	fruit	3-great	1-2	temperate
Squash (plant), Pumpkin, Gourd, Marrow, Zucchini	<i>Cucurbita</i> spp.	Honey bees, Squash bees, Bumblebees, Solitary bees	fruit	4-essential	1	temperate
Guar bean, Goa bean	<i>Cyamopsis tetragonoloba</i>	Honey bees	seed	1-little		
Quince	<i>Cydonia oblonga</i> Mill.	Honey bees	fruit			temperate
Lemon		Honey bees	fruit			temperate
Lime		Honey bees	fruit			temperate
Carrot	<i>Daucus carota</i>	Flies, Solitary bees, Honey bees	seed			temperate
Hyacinth bean	<i>Dolichos</i> spp.	Honey bees, Solitary bees	seed	2-modest		
Longan	<i>Dimocarpus longan</i>	Honey bees, Stingless bees		1-little		
Persimmon	<i>Diospyros kaki</i> , <i>Diospyros virginiana</i>	Honey bees, Bumblebees, Solitary bees	fruit	1-little		
Durian	<i>Durio zibethinus</i>	Bats, birds		3-great		tropical
Oil palm	<i>Elaeis guineensis</i>	Weevils, thrips	seed	1-little		tropical
Cardamom	<i>Elettaria cardamomum</i>	Honey bees, Solitary bees		3-great		
Loquat	<i>Eriobotrya japonica</i>	Honey bees, Bumblebees	fruit	3-great		
Buckwheat	<i>Fagopyrum esculentum</i>	Honey bees, Solitary bees	seed	3-great	1	temperate
Feijoa	<i>Feijoa sellowiana</i>	Honey bees, Solitary bees	fruit	3-great		tropical
fig	<i>Ficus</i> spp.	Fig wasps (incl. <i>Blastophaga psenes</i>) ^{[2] [3]}	fruit (syconium)	2-modest		sub-tropical
Fennel	<i>Foeniculum vulgare</i>	Honey bees, Solitary bees, flies	seed	3-great		temperate
Strawberry	<i>Fragaria</i> spp.	Honey bees, Stingless bees, Bumblebees, Solitary bees (<i>Halictus</i> spp.), Hover flies	fruit	2-modest	1	temperate
Soybean	<i>Glycine max</i> , <i>Glycine soja</i>	Honey bees, bumblebees, Solitary bees	seed	2-modest		temperate
Stanhopea	<i>Stanhopea</i>	Male <i>Euglossini</i> bees (Orchid bees)				
Cotton	<i>Gossypium</i> spp.	Honey bees, Bumblebees, Solitary bees	seed, fiber	2-modest		
Sunflower	<i>Helianthus annuus</i>	Honey bees, bumblebees, Solitary bees	seed	2-modest	1	temperate
Walnut	<i>Juglans</i> spp.	Wind pollinated.	nut			temperate

Flax	<i>Linum usitatissimum</i>	Honey bees, Bumblebees, Solitary bees	seed	1-little		temperate
Lychee	<i>Litchi chinensis</i>	Honey bees, flies	fruit	1-little		
Lupine	<i>Lupinus angustifolius L.</i>	Honey bees, Bumblebees, Solitary bees	seed			temperate
Macadamia	<i>Macadamia ternifolia</i>	Honey bees, Stingless bees (<i>Trigona carbonaria</i>), Solitary bees (<i>Homalictus</i> spp.), Wasps, Butterflies	nut	4-essential		tropical
Acerola	<i>Malpighia glabra</i>	Honey bees, Solitary bees	fruit (minor commercial value)			
Apple	<i>Malus domestica</i> , or <i>Malus sylvestris</i>	Honey bees, orchard mason bee, Bumblebees, Solitary bees (<i>Andrena</i> spp., <i>Halictus</i> spp., <i>Osmia</i> spp., <i>Anthophora</i> spp.), Hover flies (<i>Eristalis cerealis</i> , <i>Eristalis tenax</i>)	fruit	3-great	1, 2 semi dwarf, 3 dwarf	temperate
Mammee	<i>Mammea americana</i>	Bees	fruit	2-modest		tropical
Mango	<i>Mangifera indica</i>	Honey bees, Stingless bees, flies, ants, wasps	fruit	3-great		sub-tropical
Sapodilla	<i>Manikara zapotilla</i>	thrips	fruit	4-essential		tropical
Alfalfa	<i>Medicago sativa</i>	Alfalfa leafcutter bee, Alkali bee, Honey bees	seed		1	temperate
Rambutan	<i>Nephelium lappaceum</i>	Honey bees, Stingless bees, flies	fruit 1-little			tropical
Cactus, Prickly pear	<i>Opuntia</i> spp.	Bumblebees, Solitary bees	fruit	2-modest		
Sainfoin	<i>Onobrychis</i> spp.	Honey bees, Solitary bees	seed			temperate
Passion fruit. Maracuja	<i>Passiflora edulis</i>	Carpenter bees, Solitary bees, bumblebees, humming birds	fruit	4-essential		tropical
Avocado	<i>Persea americana</i>	Honey bees, Stingless bees, Solitary bees	fruit	3-great		
Lima bean, Kidney bean, Haricot bean, Adzuki bean, Mungo bean, String bean	<i>Phaseolus</i> spp.	Honey bees, Solitary bees	fruit, seed	1-little		
Scarlet runner bean	<i>Phaseolus coccineus L.</i>	Bumblebees, Honey bees, Solitary bees, Thrips	seed			
Allspice	<i>Pimenta dioica</i>	Honey bees, Solitary bees (<i>Halictus</i> spp., <i>Exomalopsis</i> spp., <i>Ceratina</i> spp.)		3-great		
Apricot	<i>Prunus armeniaca</i>	Honey bees, Bumblebees, Solitary bees, flies	fruit	3-great	1	temperate
Sweet Cherry	<i>Prunus avium</i> spp.	Honey bees, Bumblebees, Solitary bees, flies	fruit	3-great		temperate
Sour cherry	<i>Prunus cerasus</i>	Honey bees, Bumblebees, Solitary bees, flies	fruit	3-great		temperate

Plum, Greengage, Mirabelle, Sloe	<i>Prunus domestica</i> , <i>Prunus spinosa</i>	Honey bees, Bumblebees, Solitary bees, flies	fruit	3-great	1	temperate
Almond	<i>Prunus dulcis</i> , <i>Prunus amygdalus</i> , or <i>Amygdalus communis</i>	Honey bees, bumblebees, Solitary bees (<i>Osmia cornuta</i>), flies	nut	3-great	2-3	temperate
Peach, Nectarine	<i>Prunus persica</i>	Honey bees, Bumblebees, Solitary bees, flies	fruit	3-great	1	temperate
Guava	<i>Psidium guajava</i>	Honey bees, Stingless bees, Bumblebees, Solitary bees (<i>Lasioglossum</i> spp.)	fruit	2-modest		tropical
Pomegranate	<i>Punica granatum</i>	Honey bees, Solitary bees, beetles	fruit	2-modest		
Pear	<i>Pyrus communis</i>	Honey bees, Bumblebees, Solitary bees, Hover flies (<i>Eristalis</i> spp.)	fruit	3-great	1	temperate
Black currant, Red currant	<i>Ribes nigrum</i> , <i>Ribes rubrum</i>	Honey bees, Bumblebees, Solitary bees	fruit	2-modest		temperate
Rose hips, Dogroses	<i>Rosa</i> spp.	Honey bees, Bumblebees, Carpenter bees, Solitary bees, Hover flies		3-great		temperate
Boysenberry	<i>Rubus</i> spp.	Honey bees, Bumblebees, Solitary bees	fruit			temperate
Raspberry	<i>Rubus idaeus</i>	Honey bees, Bumblebees, Solitary bees, Hover flies (<i>Eristalis</i> spp.)	fruit	3-great	1	temperate
Blackberry	<i>Rubus fruticosus</i>	Honey bees, Bumblebees, Solitary bees, Hover flies (<i>Eristalis</i> spp.)	fruit	3-great		temperate
Elderberry	<i>Sambucus nigra</i>	Honey bees, Solitary bees, flies, Longhorn beetles	fruit	2-modest		temperate
Sesame	<i>Sesamum indicum</i>	Honey bees, Solitary bees, wasps, flies	seed	2-modest		
Eggplant	<i>Solanum melongena</i>	Honey bees, Bumblebees, Solitary bees	fruit	2-modest (pollinators important in green houses, but less in open fields)		temperate
Naranjillo	<i>Solanum quitoense</i>	Bumblebees, Solitary bees	fruit	3-great		tropical
Rowanberry	<i>Sorbus aucuparia</i>	Honey bees, Solitary bees, Bumblebees, Hover flies	fruit	4-essential		temperate
Service Tree	<i>Sorbus domestica</i>	bees, flies	fruit	2-modest		
Hog plum	<i>Spondias</i> spp.	Honey bees, Stingless bees (<i>Melipona</i> spp.)	fruit	1-little		
Tamarind	<i>Tamarindus indica</i>	Honey bees (incl. <i>Apis dorsata</i>)	fruit	1-little		
Cocoa	<i>Theobroma cacao</i>	Midges		4-essential		tropical
Clover (not all species)	<i>Trifolium</i> spp.	Honey bees, Bumblebees, Solitary bees	seed		1	temperate
White clover	<i>Trifolium alba</i>	Honey bees, Bumblebees, Solitary bees	seed		1	temperate
Alsike clover ^[4]	<i>Trifolium hybridum</i> L.	Honey bees, Bumblebees, Solitary bees	seed		1	temperate

Crimson clover	<i>Trifolium incarnatum</i>	Honey bees, Bumblebees, Solitary bees	seed		1	
Red clover	<i>Trifolium pratense</i>	Honey bees, Bumblebees, Solitary bees	seed		1	temperate
Arrowleaf clover	<i>Trifolium vesiculosum Savi</i>	Honey bees, Bumblebees, Solitary bees	seed		1	temperate
Blueberry	<i>Vaccinium</i> spp.	Honey bees, Alfalfa leafcutter bees, Southeastern blueberry bee, Bumblebees (<i>Bombus impatiens</i>), Solitary bees (<i>Anthophora pilipes</i> , <i>Colletes</i> spp., <i>Osmia ribifloris</i> , <i>Osmia lignaria</i>)	fruit	3-great	3-4	temperate
Cranberry	<i>Vaccinium oxycoccus</i> , <i>Vaccinium macrocarpon</i>	Honey bees, Bumblebees (<i>Bombus affinis</i>), Solitary bees (<i>Megachile addenda</i> , Alfalfa leafcutter bees)	fruit		3	temperate
Vanilla	<i>Vanilla planifolia</i> , <i>Vanilla pompona</i>	Solitary bees	fruit	4-essential		tropical
Tung tree	<i>Vernicia fordii</i>	Honey bees	seed			
Broad bean	<i>Vicia faba</i>	Honey bees, Bumblebees, Solitary bees	seed	2-modest		
Vetch	<i>Vicia</i> spp.	Honey bees, Bumblebees, Solitary bees	seed			temperate
Cowpea, Black-eyed pea, Blackeye bean	<i>Vigna unguiculata</i>	Honey bees, Bumblebees, Solitary bees	seed	1-little		
Karite	<i>Vitellaria paradoxa</i>	Honey bees	nut	2-modest		temperate
Tomato	<i>Solanum lycopersicum</i>	Bumblebees, Solitary bees (<i>Halictus</i> spp.)	fruit			tropical
Grape	<i>Vitis</i> spp.	Honey bees, Solitary bees, flies	fruit	0-no increase		temperate
Jujube	<i>Zizyphus jujuba</i>	Honey bees, Solitary bees, flies, beetles, wasps	fruit	2-modest		

Notes and Sources

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