

Planting for pollinators

Attract bees by:

- Choosing open flowers with packed clusters of tiny flowers,
- Planting blue, purple, white and yellow flowers.

Attract pollinating flies such as lacewings & syrphid flies by:

- Choosing open flowers with packed clusters of tiny flowers,
- Planting white and yellow flowers.

Attract butterflies & day flying moths by:

- Choosing open or deeper flowers to accommodate their feeding habits,
- Choosing plants that are suited as hosts for their caterpillar stage,
- Planting blue, violet, and red flowers.

Attract night flying moths by:

- Choosing deep and open flowers with a strong, sweet scent,
- Planting white, cream or pale green flowers that are visible at night.

Attract pollinating beetles by:

- Choosing wide open bowl shaped flowers.

Specific suggestions are provided in a chart on the next page.

Gardening for pollinators



Supporting bees and beneficial insects... *why should we care?*

The work of pollinators benefits us every day, whether it is the food we eat, the cotton t-shirt we wear, or the beautiful annuals in our gardens. Many insects that feed on nectar or pollen also provide pest control in their larval and/or adult stages.

What are pollinators? They are insects that transfer pollen from plant to plant. Pollination is essential for fruit and seed production. Pollinators include a variety of bees, both native (such as bumble bees, mason, leafcutter and sweat bees) and non-native honey bees, as well as flies, moths, butterflies, and some beetles.

A note about native bees: There are well over 400 species of native bees in BC. Native bees are mostly solitary. They don't form hives. Bumblebees form small nests, but over 70% of native bees spend most of their lives underground in tunnels. Other native bees live in cavities of dead wood or pithy stems. Unlike honey bees, native bees collect mostly pollen and do not produce surplus honey. Except for bumble bees, native bees don't sting. They have a short life span (often only 2-3 weeks) and have a short foraging range of only 100 – 200 metres from their nesting sites. Honey bees are not native to Canada.

Threats to pollinators: Urban sprawl, industrial agriculture and landscaping practices lead to habitat loss and loss of plants used by pollinators for forage. Pesticide use kills beneficial insects as well as targeted insects. Honey bees are threatened by protozoa and mites.

What can we do to help pollinators?

Supply plant diversity by choosing:

- A variety of flowers that are in bloom at any time during the spring, summer and fall,
- A variety of colours,
- Flowers with different shapes. Pollinators come in many sizes and with different mechanisms for pollinating.

- Native flowers, abundant in nectar and pollen. Exotics, especially double flowers and new cultivars tend to have less nectar and pollen.
- Heirloom varieties that are rich in nectar and pollen,
- Clumps or swaths of each flower species that attract the attention of pollinators,
- Shrubs and trees such as apple, dogwood, and native willow (avoid weeping willow) that provide pollen and nectar in the spring.

Enhance pollinator habitat by:

- Offering water to pollinators in a shallow dish or birdbath,
- Providing a muddy spot that supplies nutrients to butterflies and nesting materials for some bees,
- Allowing a corner of your yard to go wild with grasses, weeds, wildflowers, logs and brush that provides food, nesting sites, shelter and over-wintering sites,
- Leaving areas in your yard mulch free for ground nesting bees,
- Allowing leaf litter to remain in your garden as over-wintering sites for bumble bees.

Avoid pesticides, insecticides, herbicides, fungicides, etc.

- Pesticides may kill beneficial insects as well as targeted insects.
- 'Organic' and lower-risk pesticides may also kill beneficial insects.
- Reconsider aesthetic standards to allow for some pests. (e.g. The presence of aphids is not always a problem. Clover can be beneficial for your lawn.)



Plant selection chart		Exposure S=sun PS=part shade S=shade	Soil moisture A=average D=dry W= wet	Flowering season E=early M=mid L=late	Visitors Hb=honey bee B=native bumble bee Sb=solitary native bee Bi=beneficial insect
Common name	Scientific name				
Annuals					
Black-eyed Susan	<i>Rudbeckia hirta</i>	S	D	M - L	Sb, Bi
California Poppy	<i>Eschscholzia californica</i>	S - PS	D	E - M	highly attractive
Cosmos (single)	<i>Cosmos bipinnatus</i>	S - PS	A - D	M - L	Hb,Sb, Bi
Lacey Phacelia	<i>Phacelia tanacetifolia</i>	S - PS	A - D	M - L	highly attractive
Mexican Heather	<i>Cuphea hyssopifolia</i>	S - PS	A - D	M - L	B
Mexican Sunflower	<i>Tithonia rotundifolia</i>	S	A - D	M	B
Salvia, blue	<i>Salvia farinacea</i> ‘Victoria’	S	A - D	M - L	highly attractive
Sunflower	<i>Helianthus</i> ‘Lemon Queen’	S - PS	A - D	M - L	highly attractive, Bi
Sweet Alyssum	<i>Lobularia</i>	S	A - D	M - L	Sb, Bi
Perennials					
Aster	<i>Symphyotrichum spp.</i>	S - PS	D - W	L	Hb, B, Sb, Bi
Beebalm	<i>Monarda spp.</i>	S - PS	A - D	M	B
Black-eyed Susan	<i>Rudbeckia</i> ‘Goldsturm’	S - PS	A - W	M - L	Sb, Bi
Blanket Flower	<i>Gaillardia grandiflora</i>	S	A - D	M - L	Hb,Sb, Bi
Bluebeard	<i>Caryopteris x clandonensis</i>	S	A - D	L	Hb, B
Catmint	<i>Nepeta</i> ‘Dropmore’	S	A - D	E - L	highly attractive
Chrysanthemum	<i>Chrysanthemum weyrichii</i>	S - PS	A	L	Hb, Bi
	‘White Bomb’				
False Lamium	<i>Lamiastrum</i> ‘Herman’s Pride’	S - PS	A	E	Hb, B
Goldenrod	<i>Solidago spp.</i>	S - PS	D - W	L	highly attractive, Bi
Hyssop	<i>Agastache spp.</i>	S - PS	A - D	M	highly attractive
Joe Pye Weed	<i>Eupatorium purpureum</i>	S - PS	A - W	M	Hb, Bi
Lavender	<i>Lavandula spp</i>	S	A - D	M	Hb, B, Sb
Oregano	<i>Origanum spp.</i>	S	D	M	Hb, Sb
Purple Coneflower	<i>Echinacea spp.</i>	S	A	M - L	Hb, B, Sb, Bi
Russian Sage	<i>Perovskia atriplicifolia</i>	S	A - D	M - L	highly attractive
Sage (culinary)	<i>Salvia officinalis</i>	S	A - D	M	highly attractive
Salvia	<i>Salvia nemorosa</i> ‘May Night’	S	A - D	M - L	highly attractive
	<i>Salvia verticillata</i> ‘Purple Rain’	S	A - D	M - L	highly attractive
Sea Holly	<i>Eryngium spp.</i>	S - PS	A - W	M - L	highly attractive
Spearmint (contain)	<i>Mentha spicata</i>	S - PS	A - W	M - L	Hb, Sb, Bi
Stonecrop	<i>Sedum spp.</i>	S - PS	A - D	M	B, Hb,Sb, Bi
Squill (bulb)	<i>Scilla siberica</i>	S - PS	A - D	E	Hb, B, Sb
Wild Indigo	<i>Baptisia australis</i>	S	A - D	M	B, Hb
Yarrow	<i>Achillea spp.</i> & ‘Moonshine’	S	A - D	M	Sb, Bi
Note: umbel type flowers are also important forage for beneficial insects & small bees. (dill, cilantro, fennel, parsley, ammi majus).					

Shrubs & Trees					
Maple	<i>Acer spp.</i>	S - PS	A - W	M	attractive
Saskatoon	<i>Amelanchier spp.</i>	S - PS	A - D	E	highly attractive
Oregon Grape	<i>Mahonia</i>	PS - Sh	D	E	B,Sb
Oceanspray	<i>Holodiscus</i>	S - PS	A - D	E	highly attractive, Bi
Plum, Cherry	<i>Prunus spp.</i>	S - PS	A	E	highly nutritious
Currant	<i>Ribes spp.</i>	S - PS	A - D	E	attractive
Raspberry	<i>Rubus</i>	S	A	E	attractive
Willow (avoid weeping)	<i>Salix spp.</i>	PS - Sh	A - W	E	highly nutritious
Native plants within wilderness areas provide important forage for pollinators such as butterflies, moths and beetles, and other beneficial insects. When reclaiming disturbed land consider using the following plants: native daisies, asters, thistles & penstemons, goldenrod, rabbitbrush, native currants, ocean spray, saskatoon, oregon grape, native maples and willows.					

For more information visit these websites

Master Gardeners Association
www.mgabc.org

City of Kamloops
Integrated Pest Management & Healthy Landscapes
<http://www.kamloops.ca/ipm>

XERCES Society Pollinator Conservation Program
www.xerces.org

Pollinator Partnership
www.pollinator.org

Pollination Canada
<http://www.pollinationcanada.ca/>
An excellent source, encourages people to become pollinator observers, and has downloads of observation forms.

The Canadian Pollination Initiative
<http://www.uoguelph.ca/canpolin>

The Native Plant Society of BC
npsbc.org

Naturescape British Columbia:
naturescapebc.ca
Has information on habitat loss & green spaces

Canadian Wildlife Association
www.WildAboutGardening.org

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This brochure was made possible by a
City of Kamloops Social Planning Grant

