

BENEFICIAL INSECT INFORMATION SHEET

LACEWINGS (Chrysopa spp)¹

The larvae from this beautiful little brown or green insects with large lacy wings are the predators that destroy most of the pests.



Resembling little alligators, they're sometimes called "aphid lions" for their dining habits. They also feed on mites, small insects & insect eggs.



Green lacewing larva

Individual white eggs are found laid on ends of inch-long stiff threads, that are constructed to deter egg thieves!



LADYBUGS²



Welcomed and easily recognized by most gardeners, the young larvae of these fabulous insects bear little resemblance to their adult selves.

Like armoured prehistoric creatures, these young guys, black with orange markings eat more pests than adults and they can't fly which is a super win when you find them in your garden because they can't fly away! Woo-hoo!



Yellowish eggs are laid in clusters usually on the undersides of leaves.

Do not confuse with the 21 spotted ladybug which is a pest!

PRAYING MANTIDS³

The velociraptor of the garden, these carnivorous creatures measure about 2 – 4" in length and get their name from the way they gather their front legs when in a resting position.



Feeding on insects, insect eggs, mites, caterpillars, beetles & aphids they snap their prey at lightening speed with their front legs but be warned, they don't discriminate between beneficals or pests.



They lay hundreds of eggs within a casing called a "Ootheca". These require warm conditions over 10 – 15 days before the young nymphs hatch looking like mini-me's of their parents ready to take anyone one.

Any application of chemical pesticides will wipe out these guys so think before you spray.

HOVERFLIES ⁴

Known by a few different alias', syrphid fly, predatory aphid fly or flower fly, the adults look like little bees that hover and dart away, but they don't sting!



Their eggs are white, oval, laid singly or in groups on leaves that hatch into green, yellow, brown, orange or white 1/2" maggot look alike caterpillars.



Raising up like horses on their hind legs, they catch pretty and feed on aphids, mealy bugs and others.



Sometimes mistaken for wasps also, once you see them side by side, you'll not help but notice they're very very different.

Hoverfly vs Wasp



What's The Difference?

PARASITIC (PAPER) WASPS ⁵

Not only are these misunderstood insects great predators, they're also fantastic pollinators, right up there alongside bees. The females are continuously busy either building their nests out of saliva and wood fibres or tapping her way along a leaf looking for a caterpillar to feed her brood.



Feeding on nectar, these wasps are non-aggressive UNLESS their nest is under threat or attack, which in that case, RUN!

The nest consists of a number of cells joined together to form a comb and suspended from a fine stalk either under an eave, from a branch of a shrub, rock face or branch.

There are plenty more beneficial insects that you can do more research on. The following links are the ones I've found most useful over the years.

Website links:

<https://www.agric.wa.gov.au/control-methods/beneficial-garden-organisms?nopaging=1>

<https://greenmethods.com/necessary/the-history-of-biocontrol-and-ipm/>

<http://www.goodbugs.org.au/>

<https://permaculturenews.org/2014/10/04/plants-attract-beneficial-insects/>



Bee



European Wasp



Asian paper Wasp



Paper Wasp

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FLOWERS TO ATTRACT BENEFICIALS

Achillea filipendulina 1 2 4 5	Fern leaf yarrow
Achillea millefolium 2 3 4 5	Common yarrow
Ajuga reptans 2 4	Carpet bugleweed
Allium tanguticum 4 5	Lavender globe lily
Alyssum saxatile 2 4	Basket of Gold
Anethum graveolens 1 2 3 4 5	Dill
Angelica gigas 1 3	Angelica
Anthemis tinctoria 1 2 4 5	Golden marguerite
Aster alpinus	Dwarf alpine aster
Asclepias tuberosa 2	Butterfly weed
Astrantia major 4 5	Masterwort
Atriplex canescens 1 2 4	Four wing saltbush
Callirhoe involucrate 1 4 5	Purple poppy mallow
Carum carvi 1 3 4 5	Caraway
Cariandrum sativum 1 2 4 5	Coriander
Chrysanthemum parthenium 4	Feverfew
Cosmos bipinnatus 1 4 5	Cosmos white sensation
Daucus carota 1 2 4 5	Queen Anne's lace
Ergonum fasciculatum 2 4	CA Buckwheat
Foeniculum vulgare 1 2 3 4 5	Fennel
Helianthus maximiliani 1 2	Prairie sunflower
Lavandula angustifolia 4	English lavender
Limnanthes douglasii 4	Poached egg plant
Limonium latifolium 5	Statice
Linaria vulgaris 4 5	Butter & Eggs
Lobelia erinus 4 5	Edging lobelia
Lobularia maritima 5	Sweet alyssum white
Melissa officinalis 4 5	Lemon Balm
Mentha pulegium 4 5	Pennyroyal
Mentha spicata 4	Spearmint
Mondarda fistulosa 4	Wild bergamot

Penstemon strictus 2 4	Rocky penstemon	Mt
Petroselinum crispum 4 5	Parsley	
Potentilla reecta 'warrenii' 2 4 5	Sulfur cinquefoil	
Potentilla villosa 2 4 5	Alpine cinquefoil	
Roseaceae 3	Rose, Raspberry, Apple, Pears ...	
Rudbeckia fulgida 4	Gloriosa daisy	
Sedum kamtschaticum 4 5	Orange stonecrop	
Sedum virgaurea 4	Peter Pan goldenrod	
Stachys officinalis 4	Wood betony	
Tagetes tenuifolia 2 3 4 5	Marigold 'lemon gem'	
Tanacetum vulgare 1 2 5	Tansy	
Taraxacum officinale 1 2	Dandelion	
Thymus serpyllum coccineus 4 5	Crimson thyme	
Veronica spicata 2 4	Spike speedwell	
Vicia villosa 2	Hairy vetch	
Zinnia elegans 4 5	Zinnia 'liliput'	



Remember that ANY spray you use in the garden, organic or chemical is going to have an effect in some way shape or form so RETHINK before you hit the trigger.

Follow the 5 steps:

- 1) Get yourself all knowledged up & prevent in the first place. Think about what you're planting, what does are the intrinsic needs of that *particular* plant? Eg: light, space, water, food, companions, maintenance
- 2) Monitor & inspect your plants
- 3) Make a decision
- 4) Intervention
- 5) Keep records

