Aphids can seriously affect the health of your milkweed (e.g. Swan plants). The most common aphids in NZ are the tiny little orange Oleander aphids (*Aphis nerii*) pictured above.

While they certainly are a pest on our plants, their lifestyle is quite fascinating, especially the way that they interact with the plants and other insects in our garden.

They have soft, pear-shaped bodies and long, thin legs. They feed on the sap of phloem vessels in your plants. This sap is kept under high pressure inside the plant, and once a phloem vessel is punctured the sap is forced into the food canal. As they feed, aphids often transmit plant viruses to their food plants.

Meanwhile, ants actually ‘farm’ aphids, defending them on the plant, and consuming the large amounts of honeydew that the aphids secrete. Scientists estimate that approximately 10% of the world’s biomass is made up of ants!

Sooty mould, a disease, soon grows on the honeydew. Plants turn black, can be deformed and stunted, causing aesthetic damage and lowering plant vitality, and with heavy infestations, will die.

When host plant quality becomes poor or is crowded, female aphids produce winged offspring that disperse to other plants in the vicinity.

In early spring aphids will be noticeable on the new shoots on your plant, so be vigilant for these when your plant starts to shoot away.

If you are planting a new milkweed garden plant companion plants will help reduce the number of aphids. Companion planting is planting of different crops in close physical proximity, on the theory that they will help each other. You can imagine that if you have a garden of roses, then the first aphids to discover your garden will think they have found paradise. Your roses will soon succumb to every rose-loving pest imaginable.

Suggestions for companion plants include chives, coriander, garlic, marigolds (both Calendula and Tagetes species) nasturtiums, parsley, pennyroyal, poppies, pyrethrum, rue and tansy! We would love to know what you find effective.

Gilly Jackson reports that banana peel laid around the base of plants works a treat too.

Before the Monarchs start laying eggs you can control aphids with a weak solution of dishwashing liquid, a few drops in a spray bottle of water sprayed onto the aphids.

Another way of controlling them is to squash them with your fingers – but you need to be aware of what you are squashing. You don’t want to kill the aphids that have already been parasitised by *Aphidius colemani* (see below) nor the ladybirds in their various stages. Ladybirds are a great boon if you have aphids so encourage these, and learn to recognise the early stages of ladybirds too so that you don’t remove them by mistake.

Ladybirds’ scientific names (*Coleoptera*, meaning ‘sheath-winged’, and *Coccinellidae*, meaning ‘little red sphere’) can be quite a mouthful, but by whatever name you call them, ladybirds are well-known and well-loved worldwide.

There are nearly 5,000 species, and they come in a wide variety of colours: red, orange, pink, yellow, black and metallic blue.

One of the most familiar ladybirds in the North Island is the steel-blue *Halmus chalybeus*. It’s an Australian species, brought here in 1899 to control black scale, but it will attack a range of other scale insects as well as aphids. They don’t seem to be much affected by the seasons, and you can find them year round, particularly on citrus.

One ladybird can eat about 600 aphids in its lifetime, and about 3000 ladybirds can easily protect an entire acre of plants!

Ladybirds hibernate during the winter months, emerging in the spring to lay their eggs. They eat aphids all summer-
long, and when the temperatures drop, they seek shelter for the winter; clustering together by the hundreds under dead leaves or inside hollow logs. There they will remain until warmer temperatures return.

*Aphidius colemanii* is a small (2mm), black wasp which lays its eggs inside aphids. When the larva hatches, it kills the aphid and then pupates inside it, forming a ‘mummy’; they look like a brown, swollen aphid. (Hopefully the parasitised aphids which have been washed off will still have *A. colemanii* emerge.)

According to John Charles at HortResearch, if we can reduce the activities of ants around our milkweed, the natural enemies of the aphids (ladybirds etc) will bring things into balance.

Some time ago I bought some yellow sticky traps, to trap flying insects in my greenhouse, then realised it would also trap butterflies and *A. colemanii*. Perhaps I could cut them into strips and use a twist-tie to attach them around the trunks/stems of my milkweed, to see if that’s an effective tool against the ants... So far I have not had the time to do this.

Bernie Farrell, in England, uses a lot of potted plants with his butterflies, especially for egg-laying. He says that if the plant is heavily infested with aphids then he submerge its, pot and all in a container of water.

“If the plant is larger then I use a container such as a refuse bin,” he says. “The pots can be weighted down with a brick to ensure that all the foliage is submerged.”

He leaves the plants soaking for 24 hours and says the plants come to no harm and ‘it sure sorts the aphids out’. (I hope there are no ladybirds on his plants!)

“I use this method for other species as well that may fall prey to lurking spiders. Larvae can then be transferred to the plant which can then be netted in a predator-free environment.”

*Jacqui Knight*

NB This Fact Sheet is a work in progress. As other useful information comes to hand, it will be updated. Further copies will be available by email to trust@monarch.org.nz, or black and white copies by mail at $1 per Fact Sheet.