

Scale & Mealybug

By David & Pat Harmer

We have been battling with these 'monsters' for many years and did not really understand anything about them. Sometimes you wonder where they come from. How did they get on our plants? Why didn't we see them before they did so much damage and look at those leaves with their yellow spots and brown marks? These marks can also be confused with virus. Someone said the ants bring them. I do not think so because we haven't got any ants in the Glasshouse and the scale is still there so we decided to do some research and this is what was discovered.

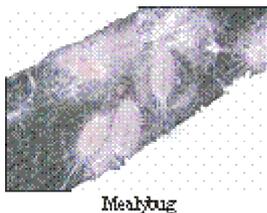
Scale and mealy bug including aphids are from the same mob called Homoptera, now that's a turn up, you would not think that a scale would have anything to do with one of them 'Woolly' things now would you. These scale, of which there are many types, can be classed into the three categories that we mainly see in our growing area. They are the soft scale of which we see 'heaps', then we have the armoured scale which we do not often see and of course last and certainly not least our old enemy the mealy bug or you might call them the 'Woolly Blokes'?

There are thousands of scale insects around the world and most of them have a very destructive nature, causing all sorts of damage. This of course affects the sale of plants, fruit and vegetables and make our orchid plants far from being in Show-bench condition.

Most scale are sedentary, that is they are just sitting and do not move. They are very difficult to control particularly with sprays and you find that most of these pests have a natural talent for survival. The armoured scale is very hard to see as it is just a black dot. We do not see him that often but they are occasionally on imported plants from interstate. The adults in particular attach themselves to the host. They are equipped with a protective coating made from the waxy secretion they produce when feeding. This forms a waxy cover over 'him' or is it 'her'. Of course with the 'Woolly Bloke' it is a dense mat of a waxy cotton-wool like substance. This cover protects the 'nasties' hiding below from the man who approaches in what appears to be a deep sea diving suit with a knap sack full of poisonous spray on his back.

A lot of these pests are out there in the garden on the trees and shrubs and even over the fence next door or in the adjacent parklands. Adult males actually have wings and they come flying and marching over to your place at certain times of the year. The immature smaller ones are very mobile crawlers and spread more slowly. Do not ever think that you have got rid of them all in your growing area because they just keep on coming back. You can import them from the trading table, interstate from your favourite nursery or even a division or present of a plant given to you by a well-meaning orchid friend.

They take up residence on 'your' leaves everywhere and particularly on a weakened or stressed plant. Heavy spraying, regularly and often must be done to penetrate their fortresses and to smother them but care needs to be taken so as not to smother the plant also and kill it at the same time.



When they camp on the underside of the leaves where you do not see them they insert their straw like mouth-part into the cells of the leaf and suck out the sap or plant's juices. They go unnoticed until you see those yellow sunken spots and signs of the damage on the top side of the leaf.

The soft scale starts of as a light white/green spot and as it matures appears as a dark coloured bump. There can be odd ones here and there or quite densely populated, particularly in the fold of a leaf or the new green leaf bracts around the pseudobulb or

anywhere else for that matter where they have some protection. The common mealy bug is whitish in colour and produces cottony egg masses while the two tailed one reproduces by giving birth to live young.

Once the colony becomes large enough you will notice the formation of the black sooty mould, which grows on the sugary excrement or honeydew that is produced. This is usually found on the leaf or leaves underneath the pests where it has 'dripped'. This is the material that the sugar feeding ants are attracted to on those warm sunny days in spring and summer.

You can also get root mealy bug which is more difficult to notice as they hide just under the bark in the root ball mass. Pull some bark away from the base of a Cattleya and you may find them under or around the rhizome of the plant.

There are several commercially made controls for both scale and mealy bug. We find Confidor the most successful product for mealy bug. For scale about 10% spray oil and water with 2mm of Malathion in a 500ml. hand sprayer but you need to keep at it. Some growers have success with systemic products where the bugs get killed when they feed on the plants but these chemicals are dangerous to spray with.

You sometimes think that you have got on top of them and then you locate a few more. It is a matter of being alert all the time and pick up each individual plant and inspect it carefully. They always seem to be where the plant is in low air movement and particularly those leaves that are close to the wall or in the corner of the growing area. Over crowding of your plants is providing them with the right conditions to operate and expand.

It is fast becoming more popular to introduce predatory insects and a lot of large nurseries have now adopted this practice but these can be expensive for the novice grower. The 'Lady Bug' we used to see a lot of in our gardens years ago loves these pests but unfortunately we have thinned these harmless insects out with garden sprays and poisons on fruit trees, roses etc. Hope this helps you to understand these fellows a little better it certainly helped us, keep at them and don't give up.
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