DIATOMACEOUS EARTH – WHAT IT IS, HOW IT WORKS, USE IN THE GARDEN

Background

With many insecticides being reclassified by the WHO and banned throughout the world, New Zealand is proactively reviewing their usage and introducing new restrictions. With this in mind most keen gardeners are looking for eco-friendly and safer alternatives that are not harmful to their families and pets, while still being effective in controlling damaging garden insects. Diatomaceous Earth has now emerged as one of the most popular products for its cost effectiveness, ease of use and versatility.

DEBug Diatomaceous Earth Insect Dust is a natural organic, abrasive powder from the fossilised remains of ancient algal shells called Diatoms or Phytoplankton. The Diatoms living in fresh waterways absorbed minerals and elements from water enabling them to 'build' their tiny shells. Consequentially, the fossilized remains have captured and contain the 15 trace minerals used to form the shell. As they die the microscopic diatoms drop to the bottom of the waterways and form deposits of sediment. These sedimentary deposits are later mined, milled, dried and bagged creating Diatomaceous Earth (more commonly known as DE).

DE is used as an insecticide, due to its abrasive and physico-sorptive properties. The fine powder absorbs lipids from the waxy outer layer of insects' exoskeletons. By cracking open their joints and by rubbing holes through their outer shells the bugs die quickly, since the holes let air in and let out moisture from the insects' bodies causing them to dehydrate. This all natural organic product is non-toxic, chemical free, non-staining and environmentally friendly with no with-holding periods.

DEBug is great for slugs, snails, aphids, caterpillars, earwigs, beetles, fruit flies, borers, thrips and more.... It is also great for around the home for fleas, spiders, cockroaches and other pests. DEBug is the only Biogro organic certified DE in New Zealand for pest and disease management for the home gardener.

Application

The DEBug can be dusted onto plants, or can be sprayed on plants in suspension in water. Any spraying method will do from small hand held sprayer to backpack. Ratios are approximately 10 grams per litre of water.

For slugs and snails, we recommend dusting DEBug around the plant base of the plants.

With Aphids and White Fly we recommend mixing the DEBug with water in suspension and adding some lemon juice (approx. 4 grams per litre). This is a natural Aphid repellent coupled with the mechanical abrasive properties of the DEBug will kill the aphids and white fly.

What about Bees and Earthworms, etc?

Bees and Butterflies

DEBug is harmless to Bees as their fine hairs stop the DEBug reaching their exoskeleton. When they take off the high velocity of their wingbeats blows away the DEBug dust. Should any remain and be taken back to the colony it will not cause colony collapse as the dust is non-toxic and inert.
Similarly, butterflies are unaffected due to their hairs as well.

Earthworms

Earthworms will not be harmed by DEbug and they can actually digest particles of DEBug. The particles are then eliminated in their castings. Worms are not insects and although a pile of dry DEBug might be rather excruciating to them, it won't harm them in the soil.

Slugs and Snails

For slugs and snails DEbug is like walking over broken glass. Whilst their mucus trail reduces the abrasive effectiveness of DEBug, it is still extremely painful to the slug and snail causing dehydration. Slugs and snails avoid DEBug sprinkled around plants.

Dogs, cats, birds and children

DEBug will not harm warm-blooded animals such as dogs, cats or birds and humans. As it is a dust and the food grade, fresh water version can be taken as a supplement its harmless to humans. It is not recommended to take the DEBug Diatomaceous Earth insect Dust as a food supplement as it has been heat treated to improve the abrasiveness. However, should it be accidently ingested it will not harm you or your pets.

Wasps

DEBug is effective on wasps as they have a hard exoskeleton, but unlike bees have no hairs to stop the DEBug abrading their outer shell.

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