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PEST MANAGEMENT

In creating a grow room or area for growing plants, you are creating PARADISE for pests!

Pest management when using Hydroponic equipment can be achieved in a three pronged approach :

(1) PREVENTION -

At Greenthings hydroponics we believe that prevention is key to minimising pest problems when growing plants, so think about how pests might enter your growing area and effect your hydroponic equipment.

The following points can help -

- You are the most common source of pests! They hitch a ride, so 'clean down' before entering your growing area. Even a paper suite (as worn by decorators) is a good idea to prevent pests getting from you to your plants and hydroponic equipment.
- Use a pre-filter on your ventilation entry point. Even an old pair of tights over the inlet will help.
- Cuttings and seedling. Use your own if possible. If not treat them before they enter your growing area. Use products such as Pest Off and Gnat off.
- Clean your growing area and hydroponic equipment between crops. Use a product such as Wipeout.
- Keep your growing area clean and tidy.
- Use Neem repel to make your plants unattractive to pests.
- Use sticky traps to catch and identify pests.
- Check plants regularly, especially the undersides of the leaves. If you identify a problem early, then it will be easier to deal with and its effects will be minimised.

(2) NATURAL CONTROL -

Natural predators can be used successfully to control pests and are an ideal pest management solution but are unlikely to completely eradicate them, due to a natural balance of predator/prey in your growing area over time.

(3) SPRAYS/TREATMENTS -

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There are some very good organic/safe treatments available today that can be used to kill pests. Sprays are an effective way of pest management although complete eradication is difficult to achieve.

Note – Neem repel is a recommended treatment that acts as a natural repellent, creating a barrier around the plants. Effective against Black Spot, Rust, Scab, Powdery Mildew, Spider Mite, Aphids, Whitefly, Leaf Hoppers, Leaf Spot, Blight, Downy Mildew and Bud Rot (Botrytis). Neem repel is safe to use on consumable crops.

More radical elimination and total pest management involves strong insecticides and fumers.

Pest Management and Some Common Pests

Aphids

A slow moving, soft bodied small insect that feed on the sap of plants. They are usually found in colonies on new growth/under leaves where they feed. Not a serious threat unless left untreated.

Control – Aphidius colemani. Episyrrhus hoverfly.

Spray/Treatment – Spray safe, effective and can be used at any time. Pest off is an effective pest management solution on growing plants.

Thrips

Thrips are small, slender and fast-moving. The adults are approximately 2 mm in length, pale yellow to brown in colour and pointed at both ends. The male is wingless and rarely found. The females have four very slender wings fringed with close-set long hairs

Natural control – Amblyseius cucumeris

Spray/Treatment – Pest off

Spider Mite

A serious pest, that left untreated, will destroy your plants. Early signs of infestation may include speckling on the leaves (where the mites have been feeding on sap). More serious infestations are indicated by a lot of webbing created by the mites.

The mites are like mobile grains of sand to the naked eye and vary in colour from red to brown and may have two dark spots. They tend to congregate on the underside of leaves. It should be noted that if you shut down your grow room, adult spider mites can enter a dormant state and survive for up to twelve months waiting for better conditions!!!

Natural control – Phytoseiulus persimilis. Amblyseius californicus.

Spray/Treatment – Spray safe, effective and can be used at any time. SMC (Spider mite control), effective, but flowers should be avoided.

Whitefly

Adult whiteflies are small, winged, white insects about 1.5-2 mm long. Eggs are laid on the underside of young leaves, which hatch into tiny white scales that remain attached to the underside of leaves.

Natural control – Eretmocerus eremicus, Encarsia formosa

Spray/Treatment – Pest off. Spray safe are effective pest management treatments.

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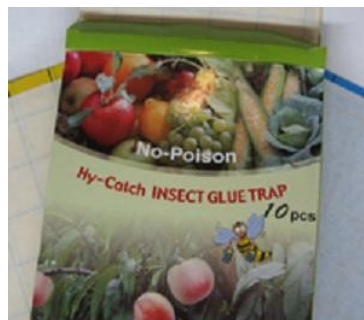
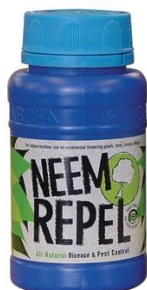
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Fungus Gnat (Sciarid Fly)

A small black fly 1-2mm in size, often seen around the top of pots. The larvae are small maggots (less than a millimeter long) that live in the growing media and feed on roots. If left untreated they can seriously stunt plants.

Natural control – *Steinernema feltiae*. *Hypoaspis* sp

Spray/Treatment – Gnat off. An easy to use treatment that you add to your nutrient solution to kill larvae.



Are you growing a crop of mites?



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Spray Safe is absolutely safe to humans and animals. There is no withholding period. You do not need to risk your crops any more.



Examine your plants twice a week and if you have any suspicion what so ever that you may have spider mite then you need to act. There are some toxic sprays occasionally available but a far healthier option is **Spray Safe**. It is an organic based non toxic and highly effective pest management alternative to toxic remedies. Independent studies have shown that **Spray Safe** kills mites up to 30 times quicker than conventional sprays and is far more effective than any other organic product. **Spray Safe** is also effective for the control of aphids.

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