

SILVERLEAF GREENHOUSES - 2020 BIOLOGICAL/BENEFICIAL PROGRAM

This is a brief synopsis of how your plants have been handled up until their shipping to your greenhouse.

Sanitation Program

In order for any disease or pest program to be effective there must be a solid sanitation program in place! Before planting in any greenhouse we clean and disinfect all areas, including floors, walls, benches, walkways, etc. All propagation benches are cleaned & disinfected with Zerotel 2.0 and Green-Shield between each planting rotation.

We start our biological program in the propagation area using the follow products:

Preventative Program

The following drench solution is applied weekly to all plant material stuck and all rooted material transplanted during that week:

Rootshield Plus WP for preventive control of plant diseases such as Phytium, Rhizoctonia, Fusarium & Thielaviopsis.

Steinernema Feltiae Nematodes - for control of fungus gnat larvae & thrips

Steinernema Carpocapsae Nematodes - for control of shoreflies & caterpillars.

We also apply the following beneficial Insects

Amblyseius Cucumeris - Predatory mite for control of thrips. This is repeated after 8 weeks to any long term crops. (ie: Lavender & Rosemary)

Atheta Coriaria - for control of soil insects Fungus Gnats, Shoreflies, Thrips

Hypoaspis miles - Mite that preys on Fungus Gnat eggs, larvae & pupae in the soil

Swirskii - Mite that preys on Spider Mites and Whiteflies. Apply weekly with Nutrimite (Pollen used as food).

Phytoseiulus persimilis - Mite that preys on Two-Spotted Spider Mite - especially effective in more moderate temperatures.

Amblyseius Californicus - Predator Mite that preys on Two-Spotted Spider Mite, small insects and Thrips, tolerate high temperatures

Orius insidiosus - Minute Pirate Bug. Feeds on Thrips, Whitefly. Aphid & Spider Mite.

The following is applied regularly to all plant material in all greenhouses:

Steinernema Feltiae Nematodes Sprench - Thrips & Fungus Gnats control

Steinernema Carpocapsae Nematodes Sprench - Shorefly control

The following is applied prior to shipping:

An additional Rootshield/ Nematode drench is applied to all cells & 2.5" material approximately one week prior to shipping, this takes place after plants are pulled for packing.

Chemicals used to supplement above program on an "as needed" basis. All are compatible with our beneficial program.

Azatin O (MOA UN) OMRI listed - Insect growth regulator works on larval & pupal stages. Controls thrips, whiteflies, aphids, leafminers, fungus gnats & more.

Botanigard WP (MOA - UN) -Safer to beneficials when used as a spray.

Floramite (MOA UN) - Controls spider mites including eggs, low level of toxicity except to skirskii.

M-Pede - (MOA UN) insecticidal soap for **spot-sprays only** on Spider Mite, Whitefly, Aphid, Thrips & others

Pyganic 1.4 EC (MOA 3A) OMRI listed- Natural pyrethrum insecticide for control of aphids, whiteflies, thrips.

Cease (MOA - NC) is applied as a foliar spray at 1.25 ozs./1 gallon or 1 gallon/100 gallons (OMRI listed)

Companion Liquid (MOA - NC) as a drench at 1tsp./gal. or as a spray at 2tsp./gal.

Biofungicide based on Bacillus subtilis GB03. Controls root, stem & foliar diseases.

Millstop (MOA - NC) OMRI listed -Fast acting broad spectrum fungicide. Quick knockdown of powdery mildew.

Decree 50 WDG (MOA 17) Controls botrytis with long acting residual.

EcoSwing (UN) -Botanical fungicide, with preventive and some curative activity on Alternaria, Botrytis, Powdery Mildew and Downy Mildew.

Fosphite (MOA 33) -Broad spectrum fungicide. Controls downy mildew, Pythium, Phytophthora & many more.

Oxidate 2.0 (MOA NC) OMRI Listed - used as a broad-spectrum contact foliar & root fungicide

Phyton 35 (MOA 1) - Bactericide and fungicide. Preventive/Curative Alternaria, Botrytis, Powdery Mildew, Phytophthora

Basil Downy Mildew Protocol

To help keep this disease in check, we start our spray program as soon as 2 true leaves are present. First we apply Fosphite at 4 tsp/gallon, we follow in 5 to 7 days with an application of Millstop (2 tsp/gallon) + Cease (2 tsp/gallon), then we follow this in another 5 to 7 days with EcoSwing (2 tsp/gallon). This rotation is repeated for as long as the basil plants are present in the greenhouse. We also disinfect all areas with Zerotel 2.0 between crops. Other effective practices to help control this disease is to minimize leaf wetness, especially late in the day and at night and to reduce humidity in the greenhouse.

***We Highly Recommend continuing a 5-7 day Downy Mildew preventative rotation**

There is no completely effective curative fungicide. Once the symptoms appear, the disease has progressed too far; it is best to discard the crop. Downy Mildew Symptoms include, poor plant vigor, yellowing leaves & blackish spores on undersides of leaves. Downy Mildew spores can travel through air from many sources. If a preventative program is not in place, infection may occur rapidly.

**The above are not recommendations or endorsements of any products or methods for treating your plants.*

This is strictly to let you know how your plants were cared for prior to shipping. Continuing this program is at your discretion!