

Aphid IPM Program

Aphids aka Plant Lice make up an extremely large family of insects that feed on plants. Some species feed on foliage, some on twigs and branches, some on flowers and fruits and some even feed on plant roots. Aphids feed on just about any type of plant; coniferous, deciduous, herbaceous and bulbs. Some species are host specific and only feed on one or two different types of plants, other aphid species feed on several different host plants. These soft bodied insects are relatively small in size, the largest are about 6 mm in length, but all can be seen by the naked eye. Aphids are oval to pear shaped and have two appendages coming out of the rear of their bodies called cornicles, they look like tailpipes. Aphids typically overwinter as fertilized eggs, and hatch early in the growing season. They can be active year round in the greenhouse setting. Females aphids use parthenogenesis reproduction, which means they don't need to mate to reproduce. This is why populations are known to explode literally overnight if the environmental conditions are right. Most of the year they give birth to live babies. Aphids have a sucking mouthpart that looks like a long needle when seen under the microscope. They insert this mouthpart into the host plant and suck the liquids from the plant. This gives way to distorted growth by the host plant. There are many native biological enemies of these pests such as green lacewings, lady beetles, and parasitic wasps. breeding ground for sooty mold. Growers should look for black mold growing on the leaf surfaces.





SPRAY OPTIONS

- Avid 0.15 EC – 8 oz/100 gals – Class 6 MOA Labeled for use in greenhouse, nursery, and landscape; Soft on most beneficial insects. Contact activity.
- Flagship 25 WG – 2-4 oz/100 gals – Class 4A MOA Labeled for use in greenhouse and nursery (Meridian for landscapes); Soft on most beneficial insects, never spray open blooms as this can be detrimental to bees and other pollinators. Also available in granular formulation for applications to growing medias. Systemic and translaminar activity.
- Endeavor – 2.5-5.0 oz/100 gals – Class 9B MOA Labeled for use in the greenhouse , nursery, landscape and interiorscapes; Soft on most beneficial insects; Addition of a Harrells non ionic or organosilicone based surfactant can improve coverage.
- Ultra Pure Oil – 1 gal/100 gals – Class NA MOA Labeled for use in greenhouse and nursery and some landscape settings; Soft on most beneficial insects; Do not spray plants that are in bloom; Do not spray plants in extreme temperatures (below 32 & above 95); Plants should be free from water stress during application, Always test oil on small scale before applying to the entire crop
- Distance IGR – 6-8 oz/100 gals – Class 7D MOA Labeled for use in greenhouse, nursery, landscape and interiorscape. Soft on most beneficial insects. Systemic and translaminar activity.
- Aria – 2.1 oz/100 gals – Class 9C MOA Labeled for use in greenhouse, nursery, landscape and interiorscape setting.

Soft on most beneficial insects

- Pyreth-It – 12-24 oz/100 gals – Class 3A MOA Labeled for use in greenhouse, nursery, landscape and interiorscape. Use only under heavy infestations and as a last defense in an IPM program. Can be detrimental to beneficial insects.

BIOLOGICAL OPTIONS

- Aphiline products – Parasitic wasps that target aphids, females lay eggs inside aphids turning them to mummies which may persist on plant until after adults emerge after several days or weeks depending on conditions. Wasps are host specific so positive aphid identification is important. Can be used undercover, especially in the nursery during spring when spraying is difficult due to excessive shipping or houses still being covered.
- Aphidoline aa – Predatory midge that feeds on both aphids and the honeydew they excrete. Does best at mid 60-80 F which makes this a good late spring/early summer release candidate, maybe once aphids have appeared and winter covers have been removed in the northern states.
- Chrysoline c – Green Lacewing larvae are predatory on a wide range of soft bodied insects including aphids. Adults are pollen and nectar feeders. Makes a good late spring/summer release as it does well at warmer temperatures.

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