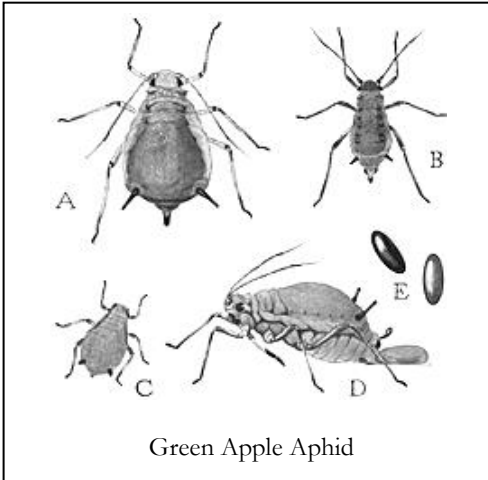


APHIDS

Best Practices



IDENTIFICATION

There are over 4000 species of Aphids. They come in many shapes, textures and colors. These soft-bodied insects usually occur on new shoots, crowns, and undersides of leaves. The aphid life-cycle includes eggs, nymphs and adults. They can be winged or wingless. Nymphs and adults insert a needle-like structure (stylet) into the plant and suck out plant sap.

DAMAGE

Symptoms of aphid damage include curled leaves, yellowish spots, and glossy leaves due to the presence of sticky honeydew (aphid excrement). A “weeping” tree that drips a sticky substance commonly has an aphid infestation. Black sooty mold (due to a fungus) may develop on leaves that have sticky honeydew on them. The presence of this mold may reduce photosynthesis, make the plant unattractive, and possibly reduce flowering and yield.

SOLUTIONS – Best Practices

Identify: Aphids come in several colors including green, black and white, but they generally look like the greatly enlarged illustration above.

Monitor/Establish Threshold: It's important to know how large the aphid population is and how much damage has occurred in order to determine the plan of action. For this example let's say that one of your roses out of six is lightly coated with aphids. Set a threshold for when action is needed: Is it the end of the season and the aphids are all about to freeze anyway? Are ladybugs nearby ready to move in? So you say it's just one rose bush out of six and all the other plants nearby are aphid free? Possibly then the threshold should be if they move to the other roses and the aphids on the one bush should be tolerated since it seems to be keeping the other plants free...if you are comfortable with that. We would then recommend twice weekly checks of the plants nearby to make sure they stay pest free, and *not* treating the one plant that has the aphids (or perhaps just hosing them off). Since everyone's tolerance is different, the plan can vary, but the higher the threshold, the fewer treatments will be needed.

Prevention: It can be difficult to prevent aphids from infiltrating your yard, but a few methods can be implemented to mitigate their onset. Using row covers to protect young plants can be helpful. You can be proactive by looking for aphid populations nearby before planting and eliminate the problem. Of course starting with aphid resistant varieties/plants in the first place will save you a lot of trouble and expense.

Control: The course of action will be determined based upon the threshold set. It's always a good idea to move from least invasive method upward. Early onset can be treated fairly simply by hosing them off with a strong stream of water (mechanical). Introducing predators like ladybugs and green lacewings can also help to control the population (biological). If sprays are needed then various oils (cottonseed, paraffins, neem, etc.) or soaps can be quite effective. You can also use microbial sprays containing spinosad. If the threshold has been seriously crossed and you need to escalate, you could use stronger sprays or drenches containing pyrethrins or imidacloprid. Regardless of method/product used ALWAYS read and follow package instructions, and NEVER spray when beneficial insects are present. One final mechanical option would be to rip out the infected plants. While this may not be a popular method, sometimes the cure is more costly and time consuming making this a viable option.

FURTHER RESEARCH

Note: parts of this information were gathered from the OSU website:

<http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/19773/ec1586.pdf>

<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7404.html>

<http://www.env.gov.bc.ca/epd/ipmp/publications/brochures/aphids.htm>

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