



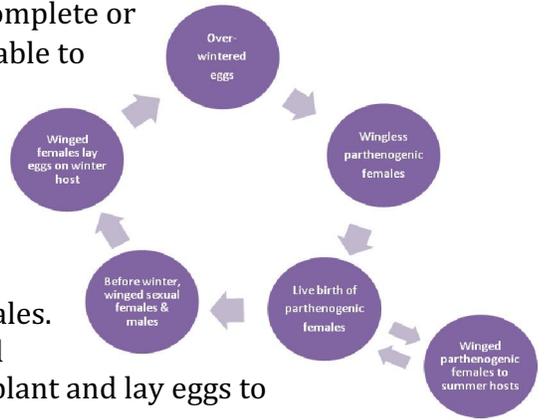
MISSOURI BOTANICAL GARDEN

William T. Kemper Center for Home Gardening

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Insect Order ID: Hemiptera (Aphids)

Life Cycle—A form of gradual metamorphosis (also called incomplete or simple). Eggs hatch in spring producing parthenogenic females (able to reproduce asexually), which give birth to live young within a few days after birth. As they eat and grow larger, they continue to produce live young, which are also parthenogenic females which also give birth within days of their birth. Eventually, parthenogenic females develop wings and fly to their summer host plant. Sometimes, survival pressures (usually from overpopulation or death of the host plant) produces winged females. Before winter, parthenogenic females produce males and winged sexual females. Mated females fly to their preferred winter host plant and lay eggs to overwinter. Indoors, sexual reproduction may not occur.



Adults & Larvae—All stages reproduce and look alike except for size. Winged forms develop to mate or to move to a different host plant. Aphids can be any color. Key identifiers are their pear-shaped bodies, long antennae, production of honeydew, white cast skins (left behind after molting), and—most important—their cornicles, which resemble tailpipes. Although cornicles are unique to aphids, not all aphids have obvious cornicles. *(Click images to enlarge or orange text for more information.)*



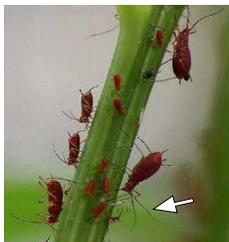
Small insects



Cornicles (black tailpipes)



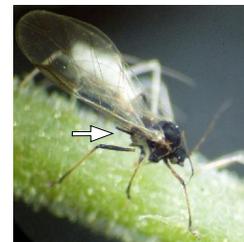
Woolly apple aphids lack obvious cornicles



Long antennae; pear shaped bodies



White cast skins



Winged aphid
Note: cornicle

Eggs–Overwintering stage.

Pupae–None. Aphids go through a form of gradual metamorphosis.

Beneficial/Benign Aspects–Feeding damage can be insignificant. Large populations in spring attract beneficial predators.

Damage–All stages have piercing-sucking mouthparts. Aphids do NOT make holes. They pierce plant tissues and suck out the juices (phloem), particularly on new growth and stems. Damaged leaves, stems and buds may appear puckered, curled, distorted, stunted, or discolored. Honeydew excreted in large amounts is often present along with aphid-tending ants and black sooty mold growing on the honeydew. Aphids are also major gall makers. *(Click images to enlarge or orange text for more information.)*



Curled, distorted leaves



Puckered, curled leaves



Leaf curling on black locust



Witches'-broom



Bud blast
Note: ants



Shiny, sticky= honeydew



Sooty mold growing on honeydew



Leaf gall



Cone gall



Bud gall on spruce

Comments–Aphids were formerly classified in the order Homoptera. They are now classified in the order Hemiptera, Suborder Sternorrhyncha, Superfamily Aphidoidea.