

Aphids

by Lloyd Eighme, retired entomologist

It seems like aphids are everywhere and many kinds are specific to a certain plant such as cabbage aphid, lettuce aphid, rose aphid and apple aphid. Then there are those that feed on many different plants like the green peach aphid and the potato aphid. Several hundred different species of aphids are known in the western states, but most of them are similar in appearance and cause similar damage to the plants they live on.

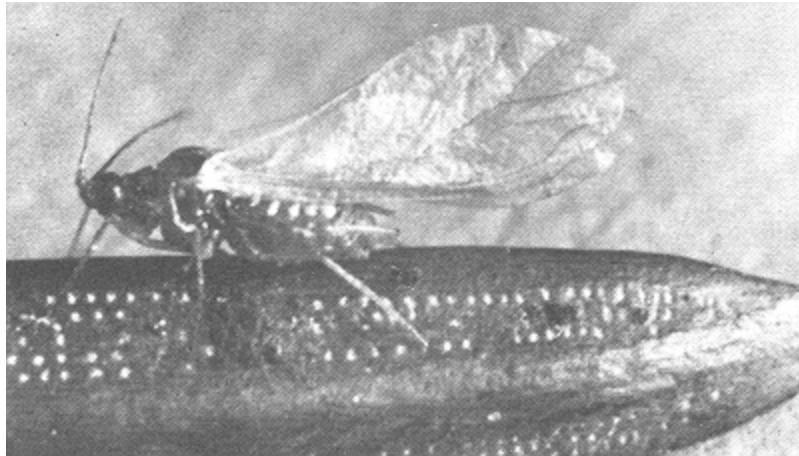
Aphids damage plants in several ways. They use their sharp beak to suck the juice from the leaves and stems. Their digestive system attracts some of the nutrients from the sap, but most of it is excreted and it drips onto the leaves causing a sticky mess. Molds and mildews grow in this sticky sap that is called honeydew and some, such as the black sooty mold, shut off the light that the plant needs to produce food. Many aphids carry virus diseases on their beak and spread it from leaf to leaf and from plant to plant. Aphids feed on the underside of new leaves causing them to distort and curl, sometimes forming galls.

Aphid life cycles are complex and often involve different stages at different times of the year. They multiply rapidly during spring and early summer by an asexual process with only females, no males and no eggs. The females produce small females instead of eggs and those females mature rapidly and produce more females. A population boom can produce hundreds of aphids in a few days. Later in the summer, males are produced and the mature males and females often migrate to a different plant where they will start the overwintering stages. That is essential for aphids that feed on annual plants that will die and not provide a place for aphids to spend the winter. Specialized egg laying daughter aphids are produced which lay overwintering eggs that hatch in the spring and develop into winged stem mothers that fly to the new plants to start the population over again. That is how aphids seem to suddenly appear from nowhere in early spring.

The rapidly developing populations of wingless female aphids early in the season are quite stationary on the plant or leaf where they were born. They do not move very far. If you knock them off onto the ground they are not likely to ever get back to the leaves again. The many predatory insects on the ground will probably devour them before they could go very far anyway. That is a good way to quickly reduce the aphid population, but it will probably not eliminate them completely. There will always be a few remaining in folded leaves or other protected spots to start the population explosion over again. You really do not want to eliminate aphids completely anyway. If you did, then what would the lady beetles and other predator insects find to eat? They would have to move away to some other garden. Have you learned to recognize the larvae of lady beetles, lacewings and hover flies? They can reduce the aphid population to

where you may not be aware of aphids in your garden. But sometimes the aphid population explosion is so great even the predators cannot keep up with it and then you will have to do something to help them, such as washing them off with water or using a non-persistent pesticide to rapidly reduce the aphid population. I enjoy eating tender broccoli tips from my garden, but I do not enjoy it garnished with dead aphid carcasses.

There are many good sources of information about aphids and how to control them. Look up EB 1067, EB 1075, EB 1012, EB 0993 and EB 1001.



Spruce Aphid



Pea Aphid