

GROWERTALKS

Columns

3/29/2017

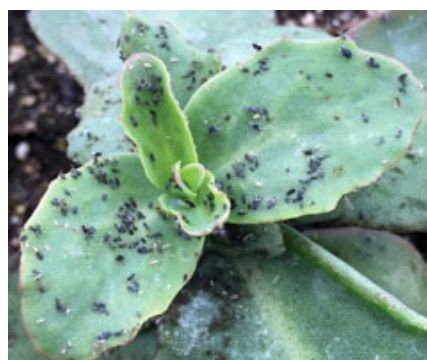
Aloha Aphids

Paul Pilon

The aphids are here! The aphids are here!

Maybe the arrival of aphids isn't that dramatic, but I do expect they often catch you by surprise. With the warm winter much of the country has experienced, the arrival of aphids is likely to be slightly earlier this year.

Greenhouses and nurseries that overwintered perennials may soon learn, if they haven't already, that they also carried over aphids. With the warmer winter, it's likely more of these little pests survived and have been actively feeding and perhaps reproducing than in a more "normal" year. That's right—aphids overwinter, too, and can become active relatively early. They're even capable of reproducing when the temperatures are just 50F (10C).



Pictured: Black aphids and white exoskeletons on a sedum. Many of them are dead from insecticide applications.

It can be very frustrating to begin a new growing season with aphids already foraging on the perennials. Although the amount of insect activity and crop damage is usually minimal during the late winter and early spring, the aphid populations can gradually increase and lead to significant crop injury or reduction in plant quality as the growing season progresses.

There are numerous aphid species that feed on a wide range of perennials. The most common ones are the chrysanthemum aphid (*Macrosiphoniella sanborni*), green peach aphid (*Myzus persicae*), foxglove aphid (*Aulacorthum solani*), melon or cotton aphid (*Aphis gossypii*), potato aphid (*Marcosiphum euphorbiae*) and there are more. Most growers don't distinguish or identify which aphid species they have, but fortunately, the biology and methods of controlling them are fairly similar for all species.

Aphids have piercing-sucking mouthparts they use to remove plant fluids from within the plant. These slow-moving insects are gregarious and quickly form large colonies on their host plants. They cause crop injury, such as stunting and deformities, vector viruses including Cucumber mosaic virus (CMV) and tobacco

ringspot virus (TRSV), and reduce a plant's quality and marketability.

The color and size of the aphids vary with species, environmental conditions and the host plant. Common colorations include green, brown, black, purplish, red or pink. They have small soft, pear-shaped bodies, measuring 1 to 3 mm in length. Most aphids are wingless, however, winged aphids may be observed on occasion. Most species can be identified by the two tubes projecting from their abdomens called cornicles, which resemble small tailpipes. Aphids are the only insects that have these tubes on their abdomens.

Aphids are usually all females that give live birth to young nymphs (witnessing a live birth is still an emotional experience for me). Each female can produce 50 to 200 nymphs in her one month lifespan. The nymphs become mature within seven to 10 days and begin giving birth to their own offspring. The ability to mature and have offspring so quickly is one reason aphids can be problematic for growers.

Aphids are usually observed in large numbers on young succulent stems, but are commonly present on nearly every above-ground plant part. One sign of aphid activity is the presence of small white skins left behind during the molting or growth process. These skins are sometimes easier to see than the live aphids themselves. The presence of honeydew (a digestive by-product that contains sugars) on the leaves may be observed when the populations are high.

There are a number of beneficial insects that control aphids, including predatory ladybird beetles (*Adalia bipunctata*), lacewing larvae (*Chrysoperla carnea*), midges (*Aphidoletes aphidimyza*) and parasitic wasps (*Aphelinus abdominalis*, *Aphidius colemani*, *Aphidius ervi* or *Aphidius matricariae*). Other biological controls include products containing azadirachtin *Beauveria bassiana*, horticultural oil, insecticidal soap and neem oil.

The systemic or translaminar neonicotinoid insecticides containing acetamiprid, dinotefuran, imidacloprid and thiamethoxam provide excellent long-term control of aphids, if you elect to use these chemistries. Other systemic or translaminar options include products containing acephate, cyantraniliprole, flonicamid, pymetrozine or spirotetramat. Others insecticides such as abamectin, bifenthrin, cyfluthrin and fenpropathrin can be applied to obtain “knock-down” control, but don’t offer much residual control.

With the warmer winter many of us have had, aphids will likely appear sooner and may become more problematic than in more “normal” years. Be on the lookout for them and be prepared to implement whichever management strategy is best for your situation. **GT**

Paul Pilon is a Perennial Production Consultant and editor-at-large of the Perennial Pulse e-newsletter. Feel free to contact him with article topics or to address your perennial production challenges. He can be reached at paul@perennialsolutions.com.