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Leaf-Curling Plum Aphid: A Pest to Watch

Aphids are pests that are typically considered and discussed as a group, but in greenhouse production occasionally a species distinguishes itself. The leaf-curling plum aphid, *Brachycaudus helichrysi*, is one of those. We recently encountered it on *Bracteantha* (strawflower) causing distortion and stunting of new growth, not something one expects from more the commonly seen green peach and melon aphids. It was also found at the same time on *Argyranthemum* though without much if any of the distortion. We don't often see aphids on these plants, though that may be changing with their increasing popularity and trend towards vegetative propagation. The infestation was also unusual for the white, filmy honeydew residue they left behind. And unlike some other aphids this one seems entirely focused upon new terminal growth and flower buds. There is no coincidence it was found on two related plants, as those in the daisy (Asteraceae or Compositae) family comprise their usual summer hosts. We have also occasionally encountered leaf-curling plum aphid on mums, also associated with some distortion of new leaves. Some forms of this aphid are also reported from red clover, but we can't say whether this one would go to that host – some strains of aphids can be quite particular. Leaf-curling plum aphid derives its name from its overwintering host, plants in the genus *Prunus* (plum, cherry, peach), where they're a spring pest causing severe curling of new leaves before departing for summer hosts. (In California it is reported a serious pest of plums). We're not sure if our particular aphids have this kind of complete (holocyclic) life cycle, dependent upon both the overwintering (*Prunus*) and summer (Asteraceae) hosts. Some leaf-curling plum aphid populations are different and apparently no longer require the winter hosts, surviving only as a greenhouse pest on the herbaceous plants like *Bracteantha*, *Argyranthemum* and chrysanthemums.

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Above: Leaf-curling plum aphid, *Brachycaudus helichrysi* (Photo: Dan Gilrein)
Below: Waxy residue and castskins on *Argyranthemum* (Photo: Margery Daughtrey)



Above: Symptoms of leaf distortion and stunting of new growth caused by leaf-curling plum aphid on *Bracteantha* (Photo: Dan Gilrein)
Below: Leaf-curling plum aphid on *Argyranthemum* (Photo: Nora Catlin)



The aphids we're seeing include both winged and non-winged forms. The non-winged forms are pale greenish yellow and similar to green peach aphids in appearance, but lack the indentation between the base of the antennae in the front of the head. The winged forms have darker coloring on the head and thorax and markings on the abdomen. The aphids also appear to cluster together much more than green peach aphids normally do.

Controls for this aphid should be similar to other aphid species. We have no reason to think that products selective for aphid shouldn't be effective, such as Endeavor (or generic versions of pymetrozine) or Aria (flonicamid). There are other insecticides with a broader spectrum of activity that may be useful to control other pests at the same time; growers using biological control or organic practices will want to consider compatibility as well. Both *Aphidius colemani* and *A. matricariae* are known to parasitize this aphid and might be included in a management program if leaf-curling plum aphid becomes a more regular visitor.

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