

Aphids belong to the order Homoptera and the family Aphidae. Three species are commonly found on citrus in Florida. All are small, about 1/16 inch in length, and are found in colonies on young growth. The spirea or green citrus aphid, *Aphis spiraeicola* Patch., is the most common. It is followed by the melon aphid, *Aphis gossypii* Glov., and the black citrus aphid, *Toxoptera aurantii* (Fonsc.). The latter species is rarely if ever a commercial problem. The green peach aphid, *Myzus persicae* (Sulz.), also has been found on citrus, but it has never been an economic factor.

Aphids undergo a complex and peculiar life cycle. Most aphids are born alive and are produced without fertilization by the male. When citrus foliage is tender the young do not develop wings as they mature but later, as the foliage hardens, winged forms are produced. These are females which fly to another tree and start new infestations. Males are produced only during the fall and winter months.

The injury caused is the result of aphids feeding on young tender growth. Leaf buds are susceptible to injury as soon as they unfold and the younger the leaves at time of infestation the more severe the injury. Aphid feeding causes the leaves to be curled and twisted. This distortion remains as long as the leaf stays on the tree. When infestations are severe, an entire growth flush may be ruined. The curled leaves are inefficient and the distortion and accompanying sooty mold serve as a breeding ground for scale insects.

Aphid injury is usually severe only during the period of spring growth. Varieties such as Temple and tangerine, which start growth later in the season, are most susceptible. This is probably the result of aphid build-up on other varieties, and as only a relatively small amount of young foliage remains, the aphids concentrate on the few varieties which are still growing. Occasionally injury may be severe in young groves during the summer months.

Aphid infestations on young bloom buds can cause a bud drop so severe that yields may be affected. However, the major consideration is the reduction in the number of normal leaves on the tree. As noted above, winged forms are produced as foliage hardens or as excess crowding develops. This results in dispersal of the aphids to other trees with tender foliage. When infestations are not noted until winged forms are already being produced in large numbers, artificial control is of little value.