

Rejuvenating Hurricane-Affected Citrus Groves

Tripti Vashisth, tvashisth@ufl.edu

Unfortunately, as the Hurricane Ian passed through Florida, it has caused extensive destruction on coast and inland, urban and rural areas. Our citrus groves had to sustain hurricane force winds and flooding. It is no surprise that HLB-affected trees undergo a lot of stress and now the hurricane has added more abiotic stress to trees. High speed winds have caused significant fruit drop and leaf drop.

Going forward, our goal is to retain as much fruit as possible on the tree and rejuvenate citrus trees for healthy vegetative growth. The fruit and leaves that escaped the drop during the hurricane event are still quite likely to drop in subsequent days.

For retaining fruit, use of 2,4-D and gibberellic acid (GA) is suggested. Both of these PGRs have potential to improve fruit retention and counteract 'ethylene' (the hormone that is known to cause leaf and fruit drop). The efficacy of these PGRs application will depend on the extent of damage that has happened. Nonetheless, these are viable alternatives for our growers under current conditions. Growers are encouraged to get GA applications done as soon as possible and preferably repeat the application. Last year, we did see good results with combined GA and 2,4-D application on fruit drop reduction in Valencia (3 applications from October to December). The current usage label for 2,4-D product is not labeled for such use, however, the growers are encouraged to get at least one 2,4-D application out to groves (as per label). These PGRs should aid in fruit retention.

Excessive leaf loss with good soil moisture content is likely to induce new vegetative growth, however, the abiotic stress from the hurricane and biotic stress from HLB infection may interrupt the potential growth. Therefore, use of GA to boost vegetative growth is suggested. In the groves where the fruit loss has been close to 100%, the growers should still consider a GA application to boost vegetative growth.

In addition, use of foliar fertilization with nitrate is suggested to aid with leaf growth, use of potassium nitrate can be considered for late maturing groves where potassium can help with fruit growth and nitrate can boost vegetative growth.

