Current production practices often include the use of various pre- and postharvest chemicals, many of which are pesticides. To be used, these materials must be labeled for use on citrus and used only according to label instructions. Chemical residues on the fruit after harvest are a concern to regulators and the public alike because of their potential negative health effects. Therefore, the United States and other countries set maximum residue limits (MRLs) on fresh produce for various chemicals. It is unlikely for US MRLs to be exceeded when label instructions are followed. However, when importing countries’ MRLs are lower than US MRLs, use of these pesticides usually must be modified or discontinued to keep from exceeding the country’s tolerances. In addition, individual buyers may set their own, more restrictive standards. Similar to buyer-imposed food safety standards, buyer-imposed MRL standards, especially from large buyers, can significantly impact how pesticides are used in the field and packing facility.

Because MRLs often change frequently, see the UF/IFAS Postharvest Resources Website (https://irrec.ifas.ufl.edu/postharvest/index/pesticides.shtml) for the most current list of MRLs (in parts per million) for various chemicals used on fresh Florida citrus for the United States, CODEX, and important export countries. This website also includes links to a global MRL database (https://bcglobal.bryantchristie.com/) for the most comprehensive list of MRLs for all commodities and markets and specific MRL databases for select countries. The limit of detection for chemical residues on citrus fruit is often around 0.01 ppm, depending on the testing laboratory and chemical of interest. When no tolerance or default tolerances are stated, any detectable residue will constitute a violation. Violations may lead to rejected loads of product, restrictions on future shipments, and even increased requirements for the entire industry to a given market. This information is intended as an initial reference source, and no guarantee is made to its accuracy. Always verify these values with other knowledgeable sources within specific markets of interest.