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# Managing COVID-19 risks in the citrus industry

By Joyjit Saha, Matthew Krug and Michelle D. Danyluk

**T**he COVID-19 pandemic has rapidly changed so much. SARS-CoV-2 (the virus that causes COVID-19) is primarily transmitted person-to-person, with no evidence it is transmitted by food or food packaging, including citrus and citrus products.

Managing COVID-19 among workers is extremely important. COVID-19 impacts on the health of employees can have catastrophic

effects, especially when operations are shuttered by health departments. There have been hundreds of documented clusters of illnesses on produce farms, in processing plants and in restaurants. Businesses can easily lose 10, 50 or even 100 percent of their staff to illness or quarantine. If these labor losses happen when crops need to be harvested, packed or processed, the results can be devastating. This article highlights some of the resources available and

considerations needed to ensure continued operation while maintaining the health and safety of workers.

The pandemic has forced many food operations to cease, slow down or change ways of operating. Meat, poultry and fresh produce have been among the hardest hit sectors, forcing plants or farms to shut down. Supply chains have been disrupted across the country. As the pandemic continues, the citrus industry must find the new normal and embrace innovative ways to continue operations.

## RECENT RESOURCES

Face coverings, physical distancing, worker cohorts and fruit packing challenges have previously been discussed in the Tip of the Week series on CitrusIndustry.net. Discussions have also happened virtually at Citrus Packinghouse Day ([youtube.com/watch?v=SMatr4nP71Q&feature=youtu.be](https://www.youtube.com/watch?v=SMatr4nP71Q&feature=youtu.be)) in August and during monthly food safety virtual office

hours ([ufl.zoom.us/webinar/register/WN\\_OSDstnJLRM6jJ8DZzcmYCA](https://ufl.zoom.us/webinar/register/WN_OSDstnJLRM6jJ8DZzcmYCA)) where University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) researchers continue to answer questions about COVID-19 and food safety.

UF/IFAS and North Carolina State University have published COVID-19 frequently asked questions and resources ([edis.ifas.ufl.edu/topic\\_covid19](https://edis.ifas.ufl.edu/topic_covid19)) for farms and packinghouses available in English, Spanish, Haitian Creole and Mandarin. The Southeastern Coastal Center for Agricultural Health and Safety ([scca.org/index.php/2020-sos-meeting](https://scca.org/index.php/2020-sos-meeting)) and UF/IFAS Extension ([swfrec.ifas.ufl.edu](https://swfrec.ifas.ufl.edu)) continue to offer training for agricultural workers in English and Spanish.

A COVID-19 training module has been incorporated into the Fresh Citrus Fruit Training Program (contact Amir Rezazadeh, multi-county fruit/field crops Extension agent at [Amir2558@ufl.edu](mailto:Amir2558@ufl.edu)). The recently funded FoodCoVNET project ([foodcovnet.ces.ncsu.edu/welcome-to-foodcovnet](https://foodcovnet.ces.ncsu.edu/welcome-to-foodcovnet)) is developing training targeted at packinghouses and processing facilities.

## GUIDANCE DOCUMENTS

Several guidance documents have also been released by government and industry organizations. They are highlighted and summarized below.

**Agriculture Workers and Employers Interim Guidance from CDC and the U.S. Department of Labor** ([www.cdc.gov/coronavirus/2019-ncov/community/guidance-agricultural-workers.html](https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-agricultural-workers.html)) and **Agricultural Employer Checklist for Creating a COVID-19 Assessment and Control Plan** ([espanol.cdc.gov/coronavirus/2019-ncov/community/pdf/Agricultural-Employer-checklist.pdf](https://espanol.cdc.gov/coronavirus/2019-ncov/community/pdf/Agricultural-Employer-checklist.pdf)) are good starting points for information on reducing COVID-19 risk in field crews.

The guidance document discusses work site assessments and a hierarchy of controls that can be used as mitigation and prevention measures. It also includes information on cohorting and highlights risks from shared residences and vehicles.

The checklist document breaks down the guidance document into five



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sections: Assessment, Control Plan, Shared Housing, Shared Transportation and Special Considerations for Children. The Control Plan section includes information on screening and monitoring workers; managing sick workers; addressing return to work after exposure; engineering controls; cleaning, disinfection and sanitation; administrative controls; and personal protective equipment.

**Employee Health and Food Safety Checklist for Human and Animal Food Operations During the COVID-19 Pandemic** ([fda.gov/media/141141/download](https://www.fda.gov/media/141141/download)) is from the U.S. Food & Drug Administration (FDA) and the Occupational Safety and Health Administration (OSHA). This is a thorough reference for packinghouses and processors which specifically targets those who grow, harvest, pack, manufacture, process or hold human foods. It includes background information and links to guidance and checklists for employee health, social distancing and food safety.

This document lays out an OSHA plan to help set up workstations (e.g., manufacturing/processing lines, sorting operations and packing lines) to include social distancing. The food-safety section emphasizes the portions of your Hazard Analysis Critical Control Points (HACCP) plan that may need to be changed if you are making any modifications to your operation. It also summarizes and links various documents and English and Spanish video resources from FDA, CDC, OSHA and the Environmental Protection Agency (EPA) related to employee hygiene, disinfection of facilities, proper use of personal protective equipment, and testing.

**Manager's Checklist of Best Practices for Field and Agricultural Labor to Minimize Person-to-Person Transmission of COVID-19** ([pma.com/-/media/pma-files/covid19/checklist\\_managers\\_field\\_ag\\_labor.pdf?la=en](https://www.pma.com/-/media/pma-files/covid19/checklist_managers_field_ag_labor.pdf?la=en)) from the Produce Marketing Association (PMA) is a document useful to farm managers and supervisors. It provides a detailed checklist about

worker health and hygiene. It includes a checklist for records and documents that should be used if employees are showing symptoms, advice on sick-leave policies and proper training for personal protection. It provides insights on social interactions, shared living quarters and breakrooms to limit the spread of SARS-CoV-2.

**Grower, Packer, and Handler Self-Check Tool for SARS-CoV-2 Prevention and Protection** ([pma.com/-/media/pma-files/covid19/covidguidedsselfcheck.pdf?la=en](https://www.pma.com/-/media/pma-files/covid19/covidguidedsselfcheck.pdf?la=en)) is a detailed guide from PMA for anyone working in the produce safety chain to protect workforces from the introduction of COVID 19. The document is divided into three categories: standard mitigation, risk reduction and high alert/remediation. Standard mitigation practices are for when there are no or low cases in the community. The risk reduction section addresses practices to implement in COVID-19 hot spots. The high alert/remediation section suggests ways to deal with confirmed cases in the farm/facility itself. The document includes ways to minimize or prevent contamination and spread of the virus.

**COVID-19 Employee Symptoms/Testing Status-Based Decision Tool for Food Facilities** ([afffoodsafety.org/wp-content/uploads/2020/07/Decision-Tool-for-COVID-19-Case-Scenarios\\_-27Jul2020.pdf](https://www.afffoodsafety.org/wp-content/uploads/2020/07/Decision-Tool-for-COVID-19-Case-Scenarios_-27Jul2020.pdf)) from the American Frozen Food Institute provides advice for when employees have been exposed to or tested positive for SARS-CoV-2. It categorizes employees based on their testing results and symptoms (e.g. asymptomatic but potentially exposed to a COVID-19 positive individual, symptomatic but not tested, asymptomatic but tested positive for COVID-19, etc). The document highlights relevant facility containment measures as per CDC guidance. It also provides a template for keeping records of employees' health status.

**Guidance for Fruit and Vegetable Operations: Considerations to Protect Seasonal Workers Supporting Fruit and Vegetable Operations During Harvesting and Processing and in Shared/Communal Housing During COVID-19** ([unitedfresh.org/content/uploads/2020/06/](https://www.unitedfresh.org/content/uploads/2020/06/)



Communal-Housing\_Harversting\_Processing-Guidance\_version-2.1-May\_27\_2020.doc.pdf) is from United Fresh Produce Association.

This document provides advice and recommendations for farm owners and operators of shared/communal housing facilities to help prevent the spread of COVID-19. It addresses considerations for the prevention of COVID-19 in shared housing situations relevant to risks from dining, social leisure and recreational activities. It highlights the necessary precautions and action items for new recruits.

**Food Safety and the Coronavirus Disease 2019 (COVID-19)** ([fda.gov/food/food-safety-during-emergencies/food-safety-and-coronavirus-disease-2019-covid-19](https://www.fda.gov/food/food-safety-during-emergencies/food-safety-and-coronavirus-disease-2019-covid-19)) highlights various resources from the FDA and U.S. Department of Agriculture related to the intersection of food safety and SARS-CoV-2 risk. It also underscores the lack of support for food or food packaging transmission of COVID-19 and the relationship to existing HACCP or food-safety plans.

**List N: Disinfectants for Coronavirus (COVID-19)** ([epa.gov/pesticide-registration/list-n-disinfectants-coronavirus-covid-19](https://www.epa.gov/pesticide-registration/list-n-disinfectants-coronavirus-covid-19)) provides a continually updated list of all products that EPA has reviewed to document effective SARS-CoV-2 control when used according to the label directions. It also provides guidance for safe use of the products.

**Keep Florida Growing** ([fdacs.gov/Consumer-Resources/COVID-19-Information/Keep-Florida-Growing](https://fdacs.gov/Consumer-Resources/COVID-19-Information/Keep-Florida-Growing)) is a website from the Florida Department of Agriculture and Consumer Services. It provides useful information for direct marketers or buyers of Florida-grown commodities, including citrus. Buyers, food banks and consumers can directly connect with growers using a list of contact information. This list is updated daily and is a great way to connect with new consumers. 🍊

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