

THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



Department of Agricultural Resources

251 Causeway Street, Suite 500, Boston, MA 02114
617-626-1700 fax: 617-626-1850 www.mass.gov/agr



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

KATHLEEN A. THEOHARIDES
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Commissioner

BULLETIN 2020_10

CLEANING AND SANITIZING Guidance #3

Considerations for Fruit and Vegetable Growers Related to Coronavirus & COVID-19

The current COVID-19 pandemic is a common concern and many are wondering what they can and should do. The information here is intended to help guide the fruit and vegetable farming community. If you have concerns or suggestions please contact the MDAR Produce Safety Team at Michael.Botelho@mass.gov or via phone at (508) 985-8751 or the UMASS Agricultural Extension Vegetable Program at lmckeag@umass.edu or via phone at (413) 577-3976.

Background

COVID-19 is the disease caused by the SARS-CoV-2 virus ("the novel coronavirus"). Symptoms include fever, cough, and shortness of breath, and may appear 2-14 days after exposure. While the majority of COVID-19 illnesses are mild, it can result in severe and fatal illness, particularly in the elderly and among those with severe underlying health conditions. Federal and State agencies are working hard to better understand the virus, how to control its spread, and how to treat those infected. One of the key things we can all do is to limit and slow the spread of COVID-19 to provide time for this understanding to develop and to not overwhelm the medical system. Much more information is available at the [CDC Situational Summary page](#).

1. What is the difference between cleaning, sanitizing, and disinfection?

The CDC provides [more detail on their cleaning website](#), but the take-homes are:

- a. "**Cleaning** removes germs, dirt, and impurities from surfaces and objects...using soap (or detergent) and water to physically remove [them]."
- b. "**Disinfecting** kills germs on surfaces or objects. Disinfecting works by using chemicals to kill germs on surfaces or objects. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection."
- c. "**Sanitizing** lowers the number of germs on surfaces or objects to a safe level, as judged by public health standards or requirements."

EXAMPLE 1: Reviewing the [label for Sanidate 5.0](#) (p.12, "General Disinfection"), a 5.3% peroxyacetic acid and 23.0% hydrogen peroxide product, we note that the concentration used for disinfection is 0.5-2.2 fl. oz. per gallon of water (230-1000 ppm of peroxyacetic acid in water) compared to the lower rate used for sanitizing (p.10, "Sanitization of Food Contact Surfaces") of 1.6-5.4 fl. oz. to 5 gallons water (147-500 ppm). Later in the label, we find the postharvest water application to control cross contamination that we're most familiar with (p. 20, "Treatment of Fruit and Vegetable Processing Waters") where the rate of use is 59.1-209.5 fl. Oz. per 1000 gallons of water (27-96 ppm).

EXAMPLE 2: Reviewing [the label for Ultra Clorox\(R\) Brand Regular Bleach](#) (alternate name, “Clorox Germicidal Bleach”), a 6.0% sodium hypochlorite product, we note that this product is labeled as effective against human coronavirus (p.35 revised). We also note that the concentration used for disinfection of hard, nonporous surfaces (p. 14 and 22 of PDF) is 2700 ppm (¾ cup per gallon of water) available chlorine compared to the lower rate used for sanitizing (p. 14 of PDF) of 200 ppm (1 tbsp per 1 gallon of water). The [effectiveness of chlorine depends on the pH of water](#).

2. **What Should I Use for Disinfection and Sanitizing?** The EPA has provided [a list of disinfectants for use against SARS-CoV-2](#), the virus causing COVID-19. Very few of these products are common on the farm and may be hard to find. If you are currently using a sanitizer as part of a standard cleaning and sanitizing procedure for hard surfaces on your farm, continue doing so. Consider reviewing the label for that product and using it for disinfection of specific high-touch surfaces if applicable.
3. **Can I use Bleach as a sanitizing agent?** Yes, you can also follow the CDC guidance and use a [mixture of bleach](#) and water (5 tbsp per gallon or 4 tsp per quart).
4. **How often should I be disinfecting/sanitizing food contact surfaces?** Farms are encouraged to expand the scope of their standard operating procedures for the cleaning and sanitizing of zone 1 and zone 2 contact surfaces. This includes increased intervals for cleaning and sanitizing steps during normal operations and during intervals associated with staff shift changes and staff breaks.
5. **Should I be disinfecting my produce?** As noted above, there is no indication that COVID-19 has spread via produce. The virus is thought to be spread mainly from person to person [according to the CDC](#). For most farms the level of operational change and amount of disinfectant needed to disinfect produce is unrealistic. If you are using a disinfectant on produce please follow the instructions located on the label of the product to find directions on the proper use of the product.
6. **What about using gloves?** Gloves can provide a barrier between hands and produce, preventing transmission of pathogens from hands to produce and from produce to hands. The Department encourages the use of gloves for farm managers and staff who are handling produce and remind growers that gloves alone do not serve as a barrier. Please remember to follow hand washing guidelines recommended by the CDC before the use of gloves and between glove change-outs.

Future Updates

This information is based on what we know now and will be updated as we learn more. Please visit: www.mass.gov/agr and www.mass.gov/resource/information-on-the-outbreak-of-coronavirus-disease-2019-covid-19 for updates.

[COVID-19 Resources for Agriculture](#)