


Produce Safety and COVID-19 Update: KS and MO Produce Growers



Based on our current scientific understanding

K-STATE Research and Extension **Extension** University of Missouri

Photo Credit: CDC

Overview

- COVID-19 background
- Proper hand washing techniques
- Hand sanitizer use
- Advice for produce growers in light of COVID-19
 - Reducing contamination from getting onto your farm
 - Farmers' Markets
 - U-Pick operations
 - Farm stands
- Resources available

K-STATE Research and Extension **Extension** University of Missouri

Background

- Coronaviruses - generally spread person-to-person through respiratory droplets.
- Currently **NO** evidence that COVID-19 is transmitted through food or food packaging.
- **May** be possible to get COVID-19 by touching surface/object with virus on it and then touching mouth, nose, or possibly eyes.
 - Not thought to be the main way the virus spreads.

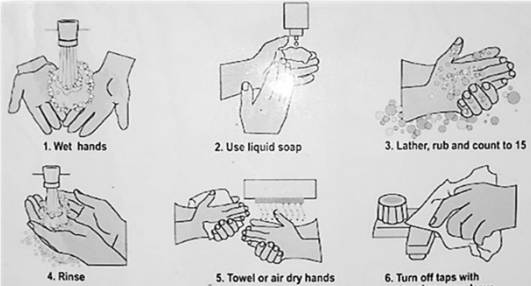
K-STATE Research and Extension **Extension** University of Missouri

How to Protect Ourselves

- Avoid close contact with others (social distancing)
- Wash hands often
 - **WHEN:** especially after being in a public place, after blowing nose, coughing or sneezing, before eating or drinking (and after using restroom, before handling food, after changing diapers, etc)
 - Don't touch eyes, nose, mouth with un-washed hands
 - **HOW:** use soap and water, for at least 20 seconds
 - Sing ABCs, Happy Birthday twice or other songs
 - Basic "normal" soap is fine

K-STATE Research and Extension **Extension** University of Missouri

Proper Hand Washing



1. Wet hands
2. Use liquid soap
3. Lather, rub and count to 15
4. Rinse
5. Towel or air dry hands
6. Turn off taps with towel or your sleeve

K-STATE Research and Extension **Extension** University of Missouri

Hand Sanitizer

- **IF** soap and water are not readily available
 - use a hand sanitizer with at least 60% alcohol
 - Cover all surfaces of your hands and rub them together until they feel dry
 - Soap and water is still the best protection!!!
 - Can use hand sanitizer after hand washing also
- Homemade hand sanitizer recipe: www.who.int/gpsc/5may/Guide_to_Local_Production.pdf
PLEASE FOLLOW DIRECTIONS exactly!

K-STATE Research and Extension **Extension** University of Missouri

On the Farm/Workplace

- Actively encourage sick employees to stay home!!
- Support respiratory etiquette and hand hygiene for employees, customers, and worksite visitors
 - Provide hand washing, hand sanitizer, trash cans, etc.
 - Do NOT wear a mask unless you are sick or caring for sick person
- Social distancing - from delivery people, etc.

K-STATE Research and Extension **Extension** University of Missouri

Cleaning Shared Workspaces

- Routinely clean all frequently touched surfaces: keyboards, telephones, doorknobs
- If surfaces are dirty, clean with a detergent or soap and water prior to disinfection.
- Disinfect: EPA-approved product list against coronavirus: www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
 - Follow the manufacturer's instructions (e.g., concentration, application method, contact time, etc.

K-STATE Research and Extension **Extension** University of Missouri

EPA List of Disinfectants

Note: Inclusion on this list does not constitute an endorsement by EPA. There may be additional disinfectants that meet the criteria for use against SARS-CoV-2. EPA will update this list with additional products as needed.

List N was last updated on March 19, 2020.

Show 25 entries Report PDF

EPA Registration Number	Active Ingredient/s	Product Name	Company	Follow the disinfection directions and preparation for the following virus	Contact Time (in minutes)	Formulation Type	Emerging Viral Pathogen Claim?	Date Added to List N
1677-129	Hydrogen Peroxide, Peroxyacetic Acid	Cosa Drenia Active	Ecolab Inc		10	Dilutable	Yes	03/03/2020
1677-226	Hydrogen Peroxide, Octanoic Acid,	Virasept	Ecolab Inc	Norovirus, Rhinovirus	4	RTU	Yes	03/03/2020

K-STATE Research and Extension **Extension** University of Missouri

Cleaning Share Workspaces

- Discourage workers from using other workers' tools and equipment, when possible.
 - If needed, clean and disinfect before and after use.
- Provide disposable wipes so that commonly used surfaces can be wiped before each use
 - doorknobs, etc.
- IF someone suspected/confirmed to have COVID19 has been in facility, use enhanced CDC-recommended cleaning recommendations: www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/disinfecting-your-home.html

K-STATE Research and Extension **Extension** University of Missouri

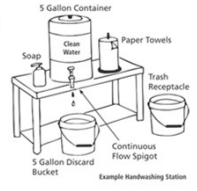
Advice for Produce Growers

- Use same good produce safety practices as always. In particular/addition:
 - Practice Social Distancing (6 feet)
 - Minimize Number of Touches
 - may include workers, distributors, and customers.
 - Stay Away from Produce if Sick
 - Use same produce washing procedures as usual- use a sanitizer
 - Wash your hands!!! (next slide)
 - Cleaning, sanitizing, and disinfection (future slide)

K-STATE Research and Extension **Extension** University of Missouri

Washing Hands

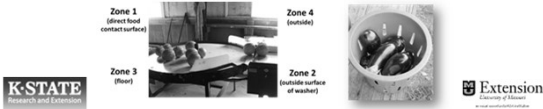
- Accessible, clean, stocked bathrooms must be available for workers and visitors
- Always have hand-washing station(s)
 - Running water, soap and clean towels located near toilet facilities and break areas
 - Wash hands for 20 seconds
- Ensure enough hand-washing stations



K-STATE Research and Extension **Extension** University of Missouri

Advice for Produce Growers

- Cleaning, Sanitizing, and Disinfection
 - All food contact surfaces, food handling equipment, bins, and tools
 - **Cleaning:** soap and water
 - **Sanitizing:** using a product labeled for sanitizing (possible hazards-lowers germs. ex: sorting table)
 - **Disinfection:** higher concentrations of a product labeled for disinfection (probable hazards- kills germs. ex: CSA bin from a household with known illness)



Recalls and COVID?

- Produce growers and food producers do NOT currently need to recall products if a worker in facility tested positive for COVID-19.
 - No evidence of virus transmitting through food or food packaging



Remember to use
hand washing or
sanitation stations



Farmers' Markets - Missouri

MO Dept. of Health information:
<https://health.mo.gov/living/healthcondiseases/communicable/ovel-coronavirus/pdf/farmers-markets.pdf>

- Press release related to farmers' markets:
<https://agriculture.mo.gov/news/newsitem/uuid/8e14a6df-3415-4a17-bf2c-9abf335c66df>

Farmers' markets are essential, but *"This waiver shall not limit the authority of a local health authority from closing or restricting the operations of a retail food establishment."*



Farmers' Markets - Kansas

- KS Dept. of Ag: www.fromthelandofkansas.com/page/farmers-market-resources



COVID-19 Guidance
For Farmers' Markets
Updated March 31, 2020

Guidance for Farmers' Markets Regarding COVID-19

The statewide "stay home" Executive Order No. 20-16 issued by Governor Laura Kelly on March 28 established that only those individuals or entities which are performing essential activities are exempt from the order. Farmers' markets are supplying food products and services which are essential functions and exempt from the statewide stay home order.

The Kansas Department of Agriculture recognizes the critical role that farmers' markets, along with community supported agriculture (CSAs) and farm stands, play in our communities, offering

Farmers' Markets

- MU Extension also developed advice for farmers' market customers
- Always check with local market, local public health department
 - May potentially only allow selling food and plants
- **Social distancing in market
- No self-service of unpackaged food (samples or for purchase)
- Handwashing!!! hand sanitizing
- Frequently clean/ disinfect high touch surfaces
- Items previously mentioned





U-Pick Operations

- Follow same considerations as farmers' markets
 - Check with local public health department
- **Try to reduce number of people on farm at one time (social distancing)
 - Biggest concern is person-to-person contact
- Could use gloves when handling money
 - Wash hands/ hand sanitize after handling cash
- Most sources say masks not necessary for healthy people
 - If people are sick, they should stay home





U-Pick Operations- 2

- Communicate with customers - No one with symptoms or exposed to known Covid case on farm
- Provide handwashing stations - customers wash hands before entering and after leaving
- Sanitize/disinfect surfaces regularly - reusable bins/ buckets, railings, doorknobs, tables, etc.
 - Use non-porous plastic tables that can be easily sanitized/disinfected whenever possible
 - Use disinfectants on EPA list
 - Bleach: ¾ cup bleach/ gallon water to disinfect, 5 min contact time




Farm Stands

- No one with symptoms should shop or work
- Provide handwashing/ hand sanitizer
- Don't take in cartons/containers that can't be cleaned and disinfected (ex: egg cartons)
- If possible, pre-portion/ prepackage items in bags before selling OR staff put items in bag for customer
- Encourage customers not to touch product; rather, buy w/ eyes
- Eliminate or clean high-touch surfaces frequently

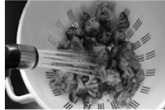



Washing Produce: Consumers

- Provide washing advice to your customers
- Always wash hands before handling food
- Wash all whole produce, even if you don't eat the peel
 - Wash just before eating or using
 - Contaminants on the peel/skin could get inside or cross-contaminate
 - Wash cantaloupe, potatoes, etc. with produce brush

Washing Produce: Consumers

- Clean running water is the best way to clean
- Do not use soap or produce wash
 - These products are not needed, safety not well evaluated

Food Safety and COVID

www.ksre.k-state.edu/foodsafety/topics/covid19.html



Food Safety and COVID-19

This website is to be a one-stop resource for information related to food safety and the COVID-19 pandemic. Please know this site will be updated frequently as more information is available.


According to the Centers for Disease Control and Prevention

Coronaviruses are generally thought to be spread from person-to-person through respiratory droplets. Currently there is no evidence to support transmission of COVID-19 associated with food. Before preparing or eating food




Produce Safety

www.ksre.k-state.edu/foodsafety/produce



Home

People

Topics of Interest

Food Preservation

Produce Safety Toolkit

FSMA

GAPs

Food Safety Plan

Additional Resources

On-Farm Produce Safety

FSMA Guidelines and Help

Good Agricultural Practices (GAPs)



Events for You!

For information on scholarships to attend GAPs, FSMA, or other produce safety training events below, please contact:

Kansas growers

Kansas Center for Sustainable Agriculture and Alternative Crops

Kelli Ebert

Other Resources

- MU Extension: <https://extension2.missouri.edu/covid-19-resources-public>
- NC State: <https://foodsafety.ces.ncsu.edu/covid-19-resources/>
- Univ Vermont: <https://blog.uvm.edu/cwcallah/2020/03/18/considerations-for-fruit-and-vegetable-growers-related-to-coronavirus-covid-19/>



Upcoming Trainings

- This session - April 6 or 7
- GAPS Food Safety Plan training for KS and MO produce farms (free) - April 15 or May 4
- Introduction to Produce Safety and Post-harvest handling (free) April 20
- Food Safety Modernization Act Produce Safety Alliance training- \$20/person- April 22 and April 29
- NOTE: GAPS cost share and free water testing still available



Questions?



Contacts

Londa Nwadike: lnwadike@ksu.edu
816-482-5860 (can leave a voice mail, sends to email)

Patrick Byers: byerspl@missouri.edu

Debi Kelly: kellyd@missouri.edu or 636-565-0087

