

Food Safety in Current Scenario & How To Ensure Safe Food Practices at Your Place

Rubeka Idrishi^{1*}, Dr. Satyapriya², Dr. Sitaram Bishnoi³, Dr. Monika Yadav⁴,
Dr. Premlata Singh⁵

^{1*}Corresponding author and SRF, ^{2,3}Principal Scientist, ⁴SRF, ⁵Principal Scientist & Head
Division of Agriculture Extension, ICAR- PUSA, New Delhi- 110012

ARTICLE ID: 013

Graphical Abstract

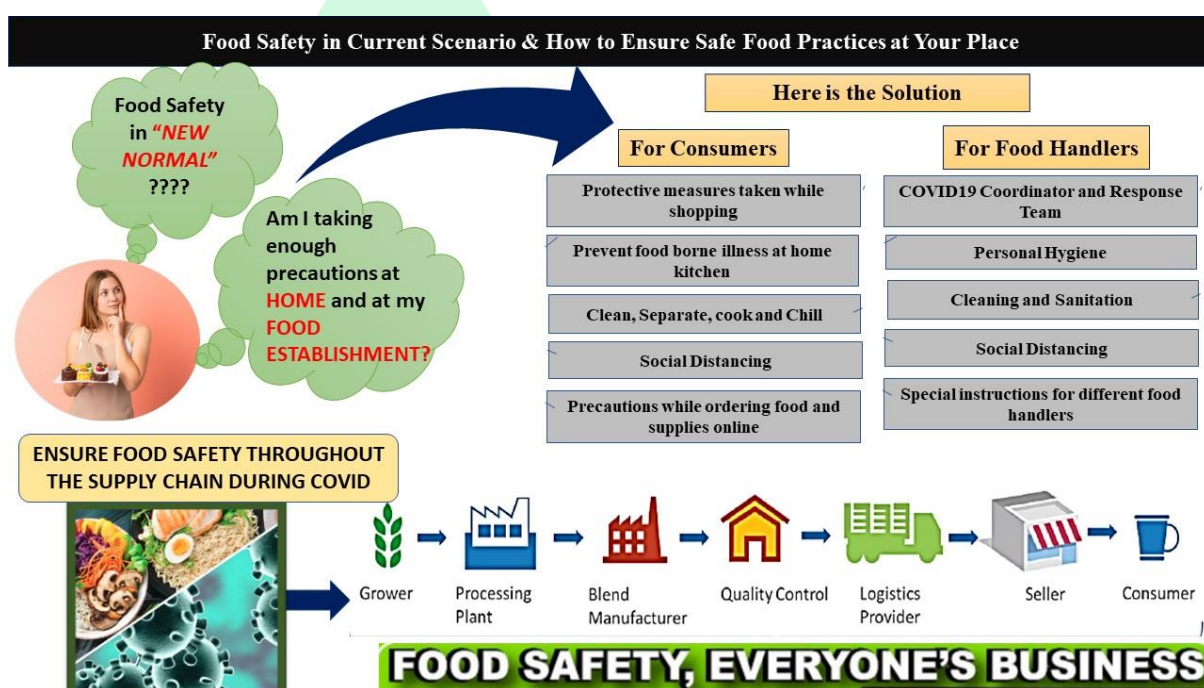


Fig: 1 Graphical Abstract (author's creation)

Since the beginning of 2020, the world is fighting the pandemic COVID19- the novel corona virus. This unending cease to the normal functioning worldwide has given a rise to debate over "NEW NORMAL" which applies to each and every sector which supports livelihood of all the species sharing some space at our mother earth. Be it us- the homo sapiens, the wildlife, the ecological habitat, marine life and others. Amongst all this the food supply chain is one of the most discussed one and ensuring food safety from farm to fork is one of the major pillars of it. Right from the cultivation and harvest of crop, up to the consumption of product by consumer, there is certain degree of value addition in every product and the role

of food safety in this value addition can be of numerous types. As it goes from producer, to wholesaler, to retailer and finally to consumer, every stage needs some safe practices throughout.

Though there has not been a single evidence found on the spread of corona virus through food, food package or improper food safety measure but the retention time of novel corona virus on various articles such as: plastic, paper, wood, metal, fibre etc is well defined by World Health organisation (WHO) in which the retention time varies from four hours to five days.

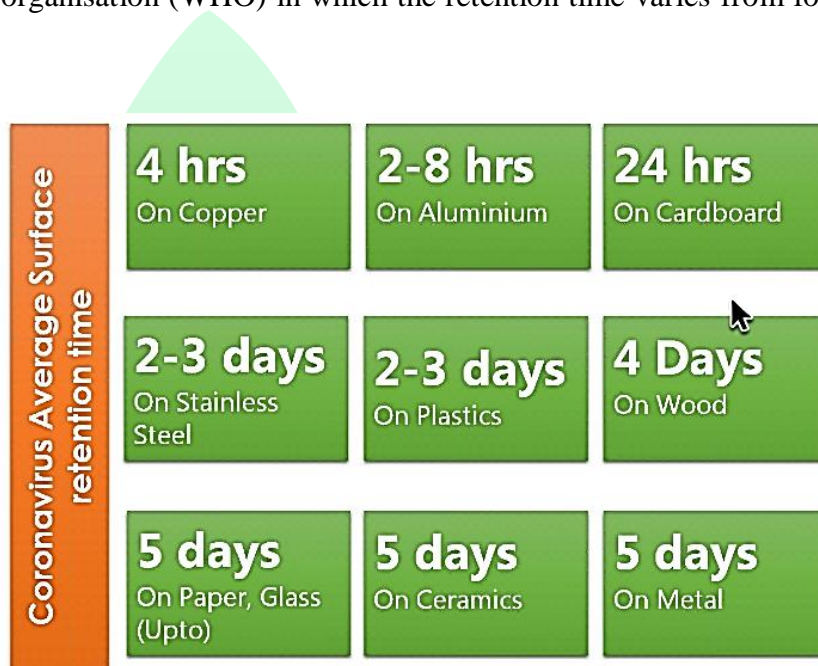


Fig: 2. Retention time of Corona virus on various surfaces, January 2020
(Source: World Health Organisation (WHO))

Though the spread is not evident yet, but the food safety measures from farm to fork has been increased worldwide. There are many challenges which is being faced by the food industry to keep up with the food safety measures which is required as per the governing bodies of the respective countries. There are common challenges and their safety measures which has taken a rise since the inception of COVID19. The need for strict food safety measures is very much applicable to food handlers and consumers while buying food and other miscellaneous items from the stores, at their homes while cooking and doing other household chores. United State Food and Drugs administration (USFDA) and Food Safety and Standards Authority of India (FSSAI) has also laid out plans and measures for food handlers as well as to the general population also, which are as followed:

For Food handlers:

All the Food handlers and Food Business Operators (FBOs) are at major risk in viewpoint of consumers because of the multiple contact points and perishable nature of the food. There are various measures which has been suggested for the challenges faced by all the food handlers by the governing bodies of the respective countries. These measures should be taken care of in the food processing or handling premises whether an owner is restarting the business after lockdown or was continuing to do so, it applies to all of them who by anyway is coming in contact of any food material be it a supply chain, cold chain, production, manufacturer, packaging or reselling.

1. Responsibilities of FBOs

- Establish a Local Emergency Response team and nominate a COVID-19 coordinator.
- Team should develop company protocols/ guidelines on the disease outbreak (COVID19)

2. For personal hygiene of food handlers

There should be strict protocols of personal hygiene for all the members in the premises such as hand washing, face mask/ cover and clean protective clothing, gloves, respiratory hygiene, reporting of illness, quarantine and isolation, discontinuation of few protocols such as biometric/ fingerprint attendance, no sharing of belongings etc, cleaning of premises after every use and the FSSAI guidelines posters should be stacked at appropriate places (refer the link in reference section for FSSAI and Centre for disease control (CDC), Atlanta Georgia posters)

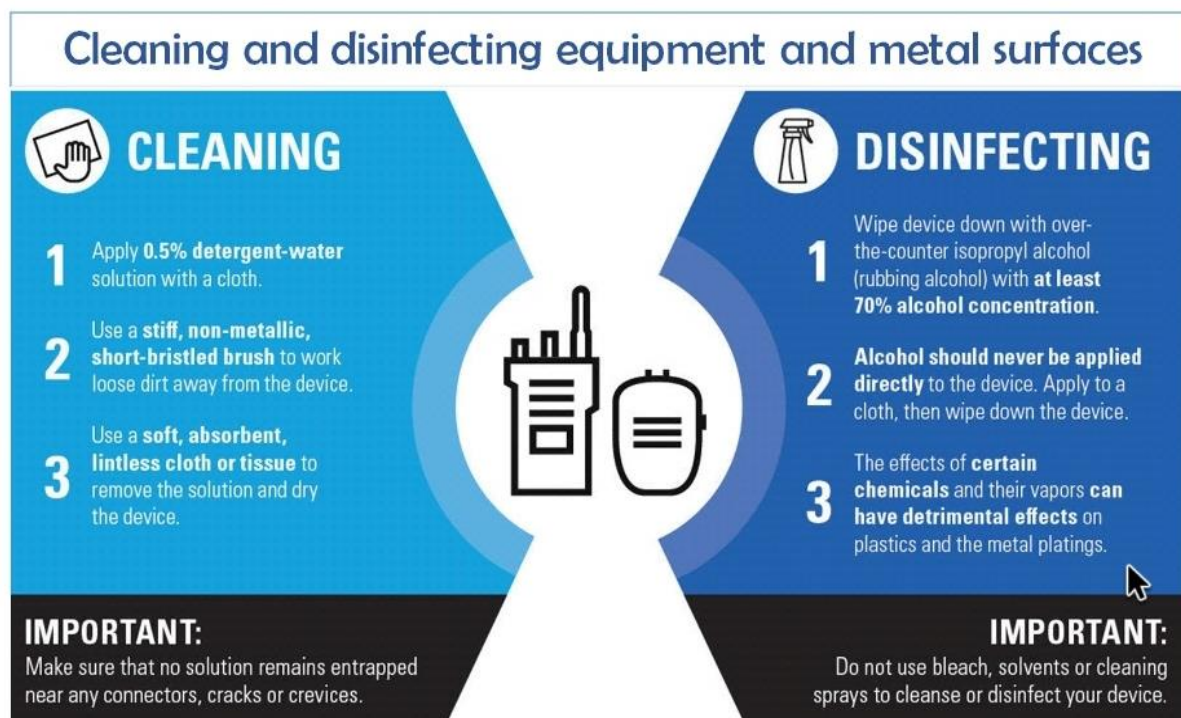


Fig:3 Cleaning and Disinfection parameters of a food premises (Source: GFC May, 2020)

3. **Social distancing: A minimum of 1-meter distance should be maintained in a food establishment and to do this FBO's should do the following:**
 - Restrict no. of employees to 3-4 in an area of 10 ft at any given point of time.
 - Reviewing the functioning lines and duties
 - Using spacing measures like stickers, tapes and markers at required places
 - Restricting usage of common lockers, belongings and face to face meetings.
 - Encouraging takeaways instead of dine in.
4. **Special Instructions for different food handlers**
 - For Food services/Delivery/ Takeaways: Important nodes such as food service area, hand wash and sanitation facility, prevention of surface contamination, no open display, visual display and pickup zones should be highly taken care of and self-service, buffet and mass gathering should be prohibited, eco-friendly disposable items, e payments, e wallets, online order and contactless delivery should be encouraged.

- For food retail premises: Clean uniforms and safety gears should be worn and the customers inflow and outflow should be safely maintained constant by markings for social distancing, making announcements, flexi glass barriers at checkout, rotating stock and by taking appropriate sanitation measures.



Fig:4 Posters released by FSSAI for customers and staff for safe practices to minimize risk of COVID-19 (Published April, 2020)

- For Food Transportation and Distribution: Appropriate training should be provided to all the people involved in food transportation for COVID19 symptoms and measures for prevention, cleaning and sanitizing the vehicles and deliveries, personal hygiene, maintaining relevant records and measures to be taken while cleaning a vehicle which had entered a red marked zone.

Apart from all these measures, it is really encouraged if the owner of a food establishment shall ensure basic ethical measures for their employees such as not asking sick employees to come to work and sending suspected employees (if they develop symptoms at work) for test rather than sending them home.

For Consumers:

To help protect yourself, grocery store workers, and other shoppers, it is important to keep a few things in mind:

1. Prepare a shopping list in advance. Buy just 1 to 2 weeks-worth of groceries at a time. Buying more than you need can create unnecessary demand and temporary shortages.
2. Wear a face covering or mask while you are in the store. Some stores and localities may require it. Check your state, county or city guidelines for any other requirements.
3. Carry your own wipes, or use one provided by the store to wipe down the handles of the shopping cart or basket. If you use reusable shopping bags, ensure they are cleaned or washed before each use.
4. Practice social distancing while shopping – keeping at least 6 feet between you, other shoppers, and store employees. Keep your hands away from your face.
5. Wash your hands with warm water and soap for at least 20 seconds when you return home and again after you put away your groceries.

Again, there is no evidence of food packaging being associated with the transmission of COVID-19. However, if you wish, you can wipe down product packaging and allow it to air dry, as an extra precaution.

As always, it is important to follow these food safety practices to help prevent food borne illness at home kitchen:

1. Before eating, rinse fresh fruits and vegetables under running tap water, including those with skins and rinds that are not eaten. Scrub firm produce with a clean produce brush. For canned goods, remember to clean lids before opening.
2. When unpacking groceries, refrigerate or freeze meat, poultry, eggs, seafood, and other perishables- like berries, lettuce, herbs, and mushrooms- within 2 hours of purchasing.
3. Regularly clean and sanitize kitchen counters using a commercially available disinfectant product or a DIY sanitizing solution with 5 tablespoons (1/3rd cup) unscented liquid chlorine bleach to 1 gallon of water or 4 teaspoons of bleach per quart of water. **WARNING:** Do not use this solution or other disinfecting products on food.
4. Always keep in mind the basic 4 food safety steps- Clean, Separate, Cook, and Chill.

As food is a source of comfort, as well as nourishment for you and your family, especially now and this advice might help you continue to buy groceries with care and confidence.

Conclusion

According to a study by FORBES, in which team of experts collected and analysed data generated for 200 countries around the world, it has been outlined that India stands far behind in safety measures adopted for combating COVID-19 than many of the countries such as Israel, Germany, Australia, New Zealand, Taiwan, Singapore, Japan and Hong Kong who are amongst top 10 countries in COVID-19 overall safety ranking. For India, there is a huge scope for improvement in every sector. Food safety being the one should be highly taken care by accepting and implementing the guidelines provided by all the major governing bodies. FSSAI should be appreciated for their efforts to train every food handler and for the efforts done on awareness of general population of India. Despite of all these measures releasing continuously, there lies a huge gap to train small and petty food businesses, uneducated population and to the ones who are planning to resume their services but are confused about the guidelines. As always said, that **“food safety is everyone’s business”** it is a moral duty of each one of us who in any way acknowledge these guidelines and safety measures to guide people around us about the same.