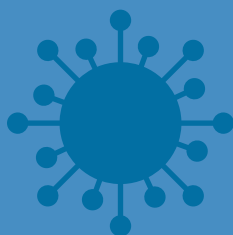




RICE STAKEHOLDERS' ADVISORY ON COVID-19



भारत
ICAR

ICAR-National Rice Research Institute
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RICE STAKEHOLDERS' ADVISORY ON COVID-19

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MESSAGE

COVID-19 pandemic has affected every sector of economy and agriculture is not an exception. Under this crisis, ensuring food security is the need of the hour to feed the burgeoning population. Rice is the most important cereal of India and it plays a vital role in the national food security as it is grown by a millions of farm households across the country. Apart from the farmers and labourers, many stockholders like input dealers, logistic partners, retailers, distributor, processors and many more people make their effort to bring the food from farm to fork. However, being highly contagious, COVID-19 has posed new set of challenges to the agricultural production and rice stakeholders. Urban areas are already at high risk due to dense population and farmers transact to urban centre for input purchase required for various agriculture and allied activities and marketing of produce may expose them to Corona virus. Additionally, lack of sufficient healthcare infrastructure in rural area and reverse migration owing to the lockdown due to COVID-19 has also increased their vulnerability towards COVID-19 infection. In such an unprecedented situation, maintaining agriculture production as well as health and livelihood of these stockholders is of great concern. In this context ICAR - National Rice Research Institute has come out with an advisory for different rice stakeholders of the country which would guide on do's and don'ts for these stakeholders while undertaking farming operations.

I appreciate the initiative of ICAR - National Rice Research Institute, Cuttack (Odisha) in bringing out this special advisory for the rice stakeholders of the nation. I believe, it would be of great use to different rice stakeholders of the country and would assist the government in issuing timely advisory on COVID-19 in the coming season.



(T. MOHAPATRA)

Dated the 30th June,2020
New Delhi

FOREWORD

The unprecedented world-wide lockdown due to COVID-19 pandemic has not only given a jolt to world economy but also gave birth to the environment of suspicion and skepticism. However, the pandemic has again brought agriculture sector to light. During the period, agriculture has been seen as ray of hope to cater to food and nutrition security on the planet and the driver to pull back the economy to new normal. Rice is an important component of food and nutritional security of the world and is cultivated majorly in the southern east Asia. *Kharif* season in the region is of utmost importance due to rice cultivation. Several operations are being undertaken by different stakeholders during this period. The incidence of COVID-19 has posed new sets of challenges to the health of the rice stakeholders in the region which would have repercussions on the global food security.

In this backdrop, ICAR - National Rice Research Institute, Cuttack (India) has developed an advisory for different rice stakeholders. I believe that this advisory would serve the rice sector in maintaining good health and safeguard their family.



(D. Maiti)
Director
NRRI

PREFACE

In the event of unprecedented lockdown due to COVID-19 pandemic, when most of the sectors of economy are witnessing standstill, agriculture sector is making its way ahead though in slower pace due to obvious reasons. India being called an agrarian economy is really experiencing its economic wheels pulled by its agricultural sector. However, different partners in the agricultural sector are exposed to a risk by the ways of performing different agricultural operations. These farmers can't afford to sit ideal during this period in their home and work from there. The Government of India has understood the gravity of issue and thereby issued orders and guidelines to exempt agriculture from the lockdown with some reasonable restrictions. At the same time Indian Council of Agricultural Research (ICAR) has also issued certain guidelines to facilitate ease in agricultural operations while observing the strict health safety protocols issued by the government.

With the current situation of increase in cases of COVID-19 infections in India and its percolation into the rural areas, the concern for agriculture sector has increased. During this period, most of the farmers undertake several operations in line to prepare their field for the upcoming *Kharif* season. The existing situation and available predictions about intensity of COVID-19 cases in India in coming months indicates a massive challenge to the farming operations in *Kharif* 2020 which may have direct implications for nation's food security.

In this backdrop, ICAR - National Rice Research Institute, Cuttack has taken the initiative to develop a special advisory on COVID-19 to ensure safety of various rice stakeholders of the country. This special advisory has been developed by considering the different operations in rice cultivation; from the decision to procure inputs for crop production to the post-harvest operations. We hope the advisory will serve as an actionable guidelines for different State governments, State Agricultural Universities (SAUs), Non-Governmental Organizations (NGOs), APMCs and other agencies engaged in agriculture sector for safeguarding the agricultural human resources of the nation.

Authors

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INTRODUCTION

Kharif season is crucial for ensuring food security by supplying the rice grains to the central pool. In India, *Kharif* production of food grains contributes nearly 85 percent to the annual stock of food grains. This season is not only important in terms of food security but is also associated with bridging the socioeconomic inequality. *Kharif* provides every tiller the opportunity to till their land and thereby add income in their pockets by its end. However, the current state of skepticism about fear of catching COVID-19 infection is a potential threat to the engagement of manpower in various farm and allied operations. Thus these negative sentiments of the people may affect the workforce participation in agriculture in coming months. However, the social distancing norms, respiratory and hand hygiene are few potential precautions which can help to reduce the risk while facilitating the farming operations.

In the event of COVID-19 pandemic, ICAR-National Rice Research Institute, Cuttack has bought out this COVID-19 special advisory for different rice stakeholders of the nation. This document suggests do's and don'ts for different stakeholders and may serve as guidelines for the state governments to release timely advisory in different rice operations for different stakeholders in coming times. This advisory can be clubbed together with the agro-advisory provided by the states based on the stage of crops and operations as per the region. The document has compiled information from various sources such as World Health Organization (WHO), Ministry of Health and family Welfare, GoI, Indian Council of Medical Research (ICMR) and others to come out with this advisory. This special advisory dedicated for rice cultivation sector of the country has been divided into ten parts for different stakeholders spanning from technology developers to technology adopters and other supportive partners from production to final sale of the produce.

Brief about SARS-COV-2 and COVID-19

Corona viruses are a large family of viruses which may cause illness in animals or humans. In humans, several corona viruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered corona virus (SARS-COV-2) causes corona-virus disease COVID-19.



Common Symptoms of COVID-19

COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization.

Most common symptoms

- Fever
- Dry cough
- Tiredness

Less common symptoms

- Aches and pains
- Sore throat
- Diarrhea
- Conjunctivitis
- Headache
- Loss of taste or smell
- A rash on skin, or discoloration of fingers or toes

Serious symptoms

- Difficulty breathing or shortness of breath
- Chest pain or pressure
- Loss of speech or movement

PRIMARY SYMPTOMS OF COVID-19



FEVER



COUGH



RUNNY NOSE



BODY
ACHES



SORE
THROAT



SHORTNESS
OF BREATH



LOSS OF SENSE
OF SMELL

The subsequent sections deal with the advisory for different stakeholders of rice.

A) ADVISORY FOR FARMERS

Farmers are at the starting point of any of the food value chain and do interact with many of the other stakeholders in carrying out agricultural operations. They are employer for many of the agricultural labourers too. Hence, they should take following precautions while discharging their duties-

1. Farmers should minimize number of labors engaged in farm operation either by adoption of mechanized farming (by own means or maximum use of custom hiring as far as possible) or by other means.
2. All farm workers should properly wash their hands, legs and face with soap or sanitizer while coming and going out of the field and at reasonable interval.
3. Wearing of face- mask during farm operations is compulsory. In the absence of



mask, face can be covered with three layers of *chunnis*, *gamchha* or towel, ensure that it's clean and not used by others.

4. Farm workers must follow the guidelines on social distancing (person to person at least 1-2 meters or 3-6 feet), sanitizing and wearing masks during all the operations including input purchasing, land preparation, crop management, harvesting and post-harvest management.



5. All farm implements like tractor, puddler, seed drill, plough, drum seeder, cono-weeder, combine harvester, small equipments, container, plastic sheet/tripal, gunny bags etc. should be properly sanitized before each use. Here, basically sanitize the handling parts of any machinery used in farm, steering wheel of tractor) with 70% alcohol, or with soap water before use. Please also ensure that such sanitization should be done when engines are cool and sufficiently before operation or cooled down after operation.
6. Prefer mechanized operations over the manual, wherever feasible. Only the essential numbers of persons should be allowed to accompany the farm machinery.
7. Sun-dry empty bags of seeds and fertilizers at least for two days for re-use.
8. In case of manual harvesting, every worker should have own implements (sickle) during harvesting and it should be sanitized before use and must not be shared with others.
9. Staggered lunch/tea breaks should be adopted to avoid gathering. They should not gather together during taking their meals and should maintain social distancing.
10. Each worker should have separate utensils for eating and drinking and that should not be shared.
11. Workers should avoid touching nose, mouth and eyes without proper washing.
12. Mask and cloth used should be cleaned with soap and sun dried after each use.
13. Workers should maintain personal hygiene and not spit here and there.
14. Farmers and other co-workers should avoid hand shaking or any physical contacts with each-other. Instead they can follow the traditional Indian gesture of *NAMASTE* to greet each other.

15. If a person is having cough, running nose, fever and headache, then he/she must be isolated, and not kept involved in any operation. He/she should be taken to the nearest hospital/health department officials.



16. The farmer, who has traveled to affected areas or other states/countries in recent days, should be asked to self-quarantine as per the guidelines issued by the govt.

17. Any migrant labourer who came from affected area, if engaged in any farm activities then they must have the certificate issued by the govt. that they have gone through



- quarantine and they don't have any symptoms. However, in most cases locally available labourers should be preferred.
18. Encourage labourers to report to employer (farmer) when they fall sick so that they can be send back for taking medical help.
19. If any member of a farmer's family is under quarantine/isolation, then they should not be engaged in any farm operation activity.
20. Transplanting, harvesting or other operation which involves many labours should be done in phased manner. Possible staggered planting in 3-4 days' interval in adjacent plots would facilitate this.
21. The farmers should regularly disinfectant farm buildings and storeroom with formaldehyde @ 5% to ensure hygiene and sanitation.
22. Farmers should keep farm produce under sun for 48 hours before storing.
23. Farm mechanization, adoption of direct seeded rice (seeding with seed drill) and chemical weed control are the need of the hour, especially in the north-western states because of shortage of migrant labour. Further, less deployment of labour at field can also check the spread of COVID-19.

24. As transplanting and harvesting are labour intensive operation, so, if possible, opt for mechanical transplanter and harvester as it involves fewer workers in the field facilitating social distancing.
25. If farm workers are involved in transplanting and harvesting of rice, then they must follow guidelines on social distancing (person to person at least 1-2 meters), sanitizing and wearing masks. For transplanting each labour should have separate sets of seedling bundles.
26. Basal dose of NPK can be applied along with irrigation ($\frac{1}{3}$ nitrogen, whole of Phosphorus and Potassium) before the last puddling as it will lessen additional labour requirement.
27. As weeds management is also labour intensive operation, it can be reduced by preventive method (clean seeds, implements, tillage and maintaining 2-5 cm water level) and with herbicides PE- Pendimethalin (in DSR), PoE- Bispyribac-sodium (100 ml/acre)



B) ADVISORY FOR INPUT DEALERS

Input dealers in agriculture deal with diverse inputs ranging from seeds, agro-chemicals, fertilizers, hormones, growth promoters and also deals in various equipments for farming operations like cono-weeder, sprayers, etc. In the transactions of these produce, they come across variety of people from different backgrounds and hence, may be source of contamination. Therefore, they can take following precautions while transacting-



1. In the shop, the provisions should be made to ensure people do not come in direct contact with the buyers/material suppliers and avoid unnecessary touching the objects in the shop.
2. Ensuring that the visitors should not assemble in mass around their shop i.e. they should ensure that strict social distancing is being followed by the visitors. To facilitate this, shop owners can pre-pack items which are sold retail (seed fertilizers etc.) of required amount based on experience of local demand.
3. It is advisable to follow the proper respiratory hygiene (Mask), Hand Hygiene

- (Frequent hand washing, Sanitization, if necessary and use of hand gloves) and ask the helper boys/man to follow the same. The shops can also keep hand sanitizers for its workers in the shop.
4. All the clothes used for a day to cover the face, should not be worn next day. These clothes should be washed with soap and sun dried before use next time.
 5. In the godowns, the workers should practice the social distancing, respiratory hygiene and hand hygiene. Regular vigil by shop owners will reduce unintentional close contact of the workers.
 6. The shop owner can ask over telephone his/her worker about their health condition before they leave their home for work. In case, the workers exhibit any symptoms, they should be barred from work until they become fit. In the shops involving more people, they can use thermal sensor to monitor their workers while the workers come for work.
 7. The pens used in the shop should not change the hands as frequently as before corona period.
 8. Ensure that the cloths of the people working in the shop/godowns are clean.
 9. Avoid spitting in and around the public places. It is advisable to not to chew tobacco or related products requiring continuous spitting.
 10. It is also advisable to wipe of the steering of the vehicle, grips of the handles of bike, door handles and keys with disinfectants available in the market.
 11. Use of digital payment methods (BHIM, YONO, GOOGLE PAY, PAYTM etc) is always advisable.
 12. It is mandatory to wash hands intermittently and avoid touching nose, mouth and eyes without washing.
 13. Use *Aarogya Setu* App.



Aarogya Setu

C) CUSTOM HIRING CENTERS/LOGISTICS PARTNERS/MACHINE OPERATORS

Custom hiring centers and the logistics partners are indispensable part of diverse set of operations in agriculture from land preparation to the sale of the produce. Custom hiring centers caters to the need of farming community in the form of making available agricultural machine and equipments to undertake various field operations. Also the logistics partners are involved in transporting the produce from farm to the markets and to the retailers. Thus, their safety is also critical for the

smooth functioning of the supply chain operations. They can take following precautions while providing their services-

1. It is advisable to follow the proper respiratory hygiene (Mask), Hand Hygiene (Frequent hand washing, Sanitization, and use of hand gloves, if necessary) by the machine operators, drivers and the service providers. Also avoid spitting at the public places.



Use net banking wherever possible



Use swap facility at marketplace

2. All the clothes used for a day to cover the face should not be worn next day. These clothes should be washed with soap and sun dried before use next time.



Use digital transactions (BHIM, PAYTM, GOOGLE PAY, YONO etc)



3. Maintain at least one meter of distance with the clients while making any deal.
4. Use of technologies like mobiles or social messaging platforms is always encouraging to avoid any direct contact with the people.
5. Use of digital payment methods (BHIM, YONO, GOOGLE PAY, PAYTM etc) is always advisable.
6. Drivers must always wear clean clothes and cover face with masks.
7. Drivers should be provided with an alcohol-based hand sanitizer, a disinfectant and paper towels.
8. Drivers should use a hand sanitizer before passing vehicle documents to transport officials or delivery documents to the market staff.
9. Ensure frequent cleaning and disinfection of touch points such as vehicle door handles, steering wheels, mobile devices, etc.
10. If a vehicle enters an area marked as a COVID-19 hotspot, then the vehicle must be thoroughly cleaned and disinfected before and after use. However, alcohol base sanitization should be strictly avoided when the engines are still hot. Cleaning and sanitation records (Sanitization Log book) must be available in the vehicle at all times.
11. The logistics partners should ensure that the vehicle should not be parked in the crowded place.

12. All machines should be sanitized at the entry point and at regular intervals. All transport vehicles, gunny bags or other packaging material should also be sanitized.
13. Proper sanitation and cleanliness of tractor/ Power tiller and accompanying parts; translators, Sprayers, Spade handles, harvester, reaper, threshers etc. is to be maintained especially when machines are shared and used by farmer groups. Copious washing of machine parts frequently touched with soap is advisable.
14. Use *Aarogya Setu* App.
15. It is mandatory to wash hands intermittently and avoid touching nose, mouth and eyes without washing.



D) ADVISORY FOR AGRICULTURAL LABOURERS

Laborers are unavoidable component of Agriculture. Extreme possible farm mechanization cannot substitute involvement of human labour by 100 percent. At the same time, the labourers are most vulnerable class and in some cases it was observed that they are reluctant to come out of home due to the fear of catching infection. However, with the following precautions, the risk can be substantially reduced-

1. The labourers should ensure that they do not exhibit any symptoms before leaving home for work. In case they exhibit any symptoms, it is advisable to stay quarantined at home or consult the doctor.
2. It is advisable to follow proper hygiene practice i.e. respiratory hygiene (Use of mask or any clean cloth to cover the nose and mouth); hand hygiene (Use of hand gloves, if available or frequent washing of hands with soap water or detergents).
3. All the clothes used for a day to cover the face, should not be worn next day. These clothes should be washed with soap and sun dried before using next time.
4. The labourers should clean their hands before drinking water and consumption of food items in the field.

5. Avoid common water cans or bottles for drinking waters. Instead, they are advised to make individual arrangements for drinking water.
6. While consuming food together in field or workplace they should ensure that their hands are clean and they are sitting at least one meter away from each other's. In case the space is not sufficient to take food simultaneously, it is advisable to stagger the consumption time.
7. Maintenance of social distance in the workplace is of utmost importance and avoids spitting at the public places.
8. In case of operations involving more labours like paddy transplanting and harvesting, the labours can undertake operations from different directions in the field. Also, in case of manual field operations of harvesting/ picking, accomplish the operation in 4-5 feet spaced strips assigning one strip to one person so that they do not violate the social distancing protocols.
9. Labours engaged in loading and unloading operations should ensure that they do not touch unnecessary objects at different place of their transit; should follow all the hygiene such as respiratory hygiene (Mask/ Covering of face), Hand hygiene (hand washing and usage of gloves) and social distancing protocols.
10. Use Aarogya Setu App.
11. It is mandatory to wash hands intermittently and avoid touching nose, mouth and eyes without washing



E) ADVISORY FOR AGRICULTURAL MARKETS (APMCs)

APMCs/Market yards are the crucial points for the disposal of farm produce by the farmers. The daily buying and selling operations at APMCs involve the aggregation

of different stakeholders in the supply chains (Farmers, Traders/ *Ahartiyas*/ Grain Merchants, APMC officials, processors etc); the service providers (Hamals for loading and unloading operations, logistics partners, weigh men and others); the services providers in case of eNAM and other service persons like canteen person, parking persons and others. Thus, the APMCs are the centre which simultaneously engages series of persons in supply chain. Therefore, strict safety measures have to be taken in the APMCs/ Market yards. The following precautions can be taken at the APMCs-



1. Issuing of tokens to the farmers for sale of their produce so as to manage the crowding in the *mandies*.
2. Close monitoring of the entry/ exit points in the APMCs to regulate any unauthorized entry.
3. Thermal scanning of the visitors/ officials/ workers/ other entering the APMCs.
4. Record keeping (Name, Address, telephone no) of each entrant in the APMCs. It will help in contact tracing, if found any positive cases.
5. Use public address systems/ LCD Screens, if available, to communicate or pass on important information.
6. Following the strict respiratory hygiene, hand hygiene and social distancing norms in the market yard and APMC premises.
7. All the clothes used for a day to cover the face, should not be worn next day. These clothes should be washed with soap and sun dried before next use.
8. Using digital transactions for the sale and purchase (DBT of money) and eNAM.
9. Sanitization of vehicles entering the APMCs at the entrance.
10. Regular cleaning of market yards and the market premises.
11. Regular health checkup of the APMC employees and Officials.



12. Workers should be allowed to stay at home in case of exhibiting any symptoms of the COVID-19 and subsequent testing.
13. Avoid spitting at the public places.
14. Regulate the crowd around the market yards by temporarily dismantling/dislocating the tea/*pan* shops.
15. Ensure that people should not urinate near the road as spitting after urinal is a common practice.
16. The toilets should have to be maintained neat and clean.
17. The weigh men, laboureres and the logistics partners should frequently wash their hands and frequently sanitize the surfaces before use.
18. Avoid shaking hands with peoples. Instead follow the traditional way of greetings by *NAMASTE*.
19. Sanitize the vehicles or its steering/ handles/ seats before using them.
20. Avoid unnecessary staying in the market yards and market premises.
21. Use *Aarogya Setu* App.
22. It is mandatory to wash hands intermittently and avoid touching nose, mouth and eyes without washing.

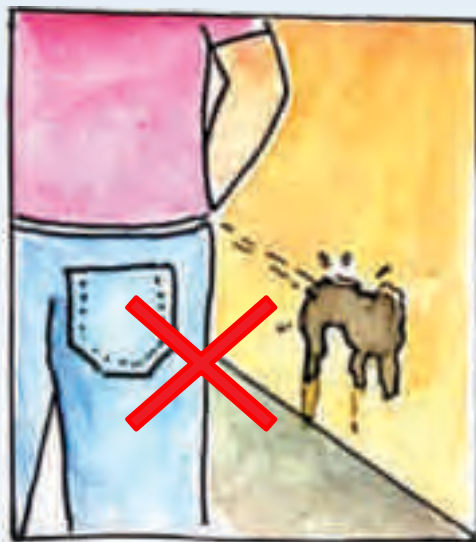


F) ADVISORY FOR TRADERS/ PROCUREMENT AGENCIES AT VILLAGE LEVEL

Apart from the regulated trade of rice in the regulated markets, the traders and state procurement agencies also operate at grass root level for procurement of paddy from the farmers. Thus, maintenance of safety in such operation is quite important. The state procurement agencies/traders should practice following precautions to maintain the safety of its people and the farmers-

1. The state procurement agencies should issue the limited number of tokens per day so as to avoid unnecessary crowding in the procurement centers. Mobile apps. can be made use for this.
2. The private traders should lift the produce from door to door and ensure the payment to the farmers in time.
3. The procurement agencies and traders should maintain the record of farmers, they come across.

4. It is advisable to follow proper hygiene practice i.e. respiratory hygiene (Use of mask or any clean cloth to cover the nose and mouth); hand hygiene (Use of hand gloves if available or frequent washing of hands with soap water or detergents).
5. All the clothes used for a day to cover the face, should not be worn next day. These clothes should be washed with soap and sun dried before next use .
6. Maintenance of social distancing norms is mandatory for these people and they should also ensure that it is followed strictly at the procurement centers.
7. Use of *Aarogya Setu* App is recommended.
8. The handles of the doors of vehicles, steering/handles/seats *etc.* should be frequently sanitized.
9. Avoid chewing of tobacco/*pan* and spitting unnecessarily at public places.
10. The persons engaged in loading/unloading and weighing should also maintain social distance. While taking rest or doing lunch it is mandatory to maintain minimum of one meter or six feet distance between two persons.
11. The traders are required to ask the health condition of the labourers and driver before they come for work. If they exhibit any symptoms, they shall be allowed to take rest and consult doctors immediately.
12. It is mandatory to wash hands intermittently and avoid touching nose, mouth and eyes without washing.



G) ADVISORY FOR PROCESSORS

Processing is an indispensable function of any food value chain which requires the series of different services by different individuals. The processing plants like rice mill, floor mill, rice flacks production units or any secondary level processing unit are important components of rice value chain. These processing units should take following precautionary measures.

1. The processing units should undertake the thermal scanning of the visitors (workers, logistics partners, raw material suppliers, mechanics and other stakeholders) in its entry point.

2. Follow proper respiratory (Use of mask or any clean cloth to cover the nose and mouth) and hand hygiene (Use of hand gloves if available or frequent washing of hands with soap water or detergents).
3. Avoid the used cloth/ gamcha/ dupatta/ chunni etc. to cover face subsequently for two or more days. Always use clean cloth or masks to cover face.
4. The workers are allowed to enter to the work floor or work place only after thorough sanitization.
5. None of the workers should be allowed to enter into the work area if he/she exhibits any symptoms of COVID-19.
6. Provision of providing sanitization kits to the workers should be made in primary as well as secondary processing unit to encourage the healthy food products preparation. Minimize human touch as much as possible.
7. The persons engaged in loading/unloading and weighing should also maintain social distance. While taking rest or doing lunch it is mandatory to maintain minimum of one meter or six feet distance between two persons.
8. The handles of the doors of vehicles, steering/handles/seats etc. should be frequently sanitized.
9. Avoid chewing of tobacco/*pan* and spitting unnecessarily at public places.
10. Use of *Aarogya Setu* App is recommended.
11. Sanitize the vehicles or its steering/handles/ seats before using them.
12. It is mandatory to wash hands intermittently and avoid touching nose, mouth and eyes without washing.



H) ADVISORY FOR RETAILERS AND PDS SHOPS

These two points are the last points in value chain of any commodity before the final consumption. Hence these points witness people from different places, background, and health conditions, and so on. Thus, these points should take following precautions-

1. The PDS shops should register the name of only limited persons per day for the distribution of food grains and give the beneficiary the estimated time of their turns so that they need not stay at the center waiting for their turns.
2. The PDS shop/retailers' workers need to frequently sanitize their hands while distributing foods. It would be desirable if they do sanitize their hands after each sale.
3. Social distancing norms should have to be strictly followed in the PDS shops or retail shops.
4. It is advisable to follow proper hygiene practice i.e. respiratory hygiene (Use of mask or any clean cloth to cover the nose and mouth); hand hygiene (Use of hand gloves, if available, or frequent washing of hands with soap water or detergents).
5. All the clothes used for a day to cover the face, should not be worn next day. These clothes should be washed with soap and sun dried before next use .
6. The shop owners or the distributors at PDS shops are required to ask the health condition of their supporting staff before they come for work. If they exhibit any symptoms, they shall be allowed to take rest and consult doctors immediately.
7. The handles of the doors of vehicles, steering/handles/seats *etc.* should be frequently sanitized.
8. Avoid chewing of tobacco/*pan* and spitting unnecessarily at public places.
9. Use of *Aarogya Setu* App is recommended.
10. If the phone number of the PDS beneficiaries is registered with the PDS shops, they can be sent message about the day and tentative time of their turns for collecting the PDS supplies.
11. It is required to sanitize the pen/inkpad after every usage in the PDS shops.
12. Wash hands intermittently and avoid touching nose, mouth and eyes without washing.



I) ADVISORY FOR TECHNOLOGY DEVELOPERS AND TESTERS

Scientific and technical community of National Agricultural Research and Education System (NARES) are crucial players involved in technology development and its field testing. They should undertake following precautions at their workplace-

1. Follow proper hygiene practice i.e. respiratory hygiene (use of mask or any clean cloth to cover the nose and mouth); hand hygiene (use of hand gloves if available or frequent washing of hands with soap water or detergents).



2. Avoid the used cloth/gamcha/dupatta/chunni etc. to cover face subsequently for two or more days. Always use clean cloth or masks to cover face.
3. The office/workplace should ensure the provision for thermal scanning and sanitization of its staff before they enter the office premises.
4. The office should follow the staggered entry and exit time for the staff members.
5. More number of entry points should be operated with strict monitoring of the visitors in the office so as to avoid rush at one entry point.
6. Social distancing protocols should be strictly adhered too.
7. Use of electronic means of communication should be followed in the office.
8. The scientists should ensure that they maintain the social distancing, and respiratory hygiene and hand sanitization while they conduct any trials in the field or at laboratory.
9. The door handles of the laboratory and office should be daily sanitized.
10. The officials should ensure that they and their subordinates are using the *Aarogya Setu* App.
11. On exhibiting any of the symptoms of COVID-19, it is suggested to stay at home and consult the doctor immediately.
12. Avoid consumption of tobacco/*pan* at the workplace and also spitting at public place.



13. The toilets in the office should be cleaned at least twice and each user must ensure that they do flush always, if spitting in the wash basin.
14. In case any technology/product is to be handled by the scientists or their subordinates it is mandatory that the surface of the product should be properly sanitized after every use.
15. It is required to use apron, gloves, mask etc. in the laboratory and equipments used in laboratory or their surface should be frequently cleaned after every usage.
16. While visiting the new places (farmer's field) for technology testing, it is suggested to follow the respiratory hygiene, social distancing and hand sanitization.
17. The data enumerators in the field should ensure that they do maintain safe distance with their respondents and they should ensure that their pen or schedule should not be touched by others.
18. It is always good to maintain the personal hygiene without encroaching upon the hygiene of others at the workplace.



Aarogya Setu

J) ADVISORY FOR AGENCIES INVOLVED IN TRANSFER OF TECHNOLOGIES

Apart from the research institutions under NARES, the Krishi Vigyan Kendra (KVKs), State Department of Agriculture, various district level agencies and NGOs are involved in the technology transfer. For this, they



need to reach to the technology users/adopters i.e. farmers mostly. Hence, they should undertake following precautions while transferring the technologies-

1. Follow proper respiratory hygiene (use of mask or any clean cloth to cover the nose and mouth) and hand hygiene (use of hand gloves if available or frequent washing of hands with soap water or detergents).
2. Avoid the used cloth/gamcha/dupatta/chunni etc. to cover face subsequently for two or more days. Always use clean cloth or masks to cover face.
3. The officials should ensure that they and their subordinates are using the *Aarogya Setu* App.
4. While delivering the technological inputs (such as seeds, machineries etc.), it should be taken into consideration that, the physical proximity should have to be avoided as far as possible.

5. The subordinates should be using the hand gloves and wash their hands after reaching every user of the technology.



6. The vehicle should have to be sanitized before every tour.
7. The handles of the doors of the vehicle should have to be sanitized before every touch.
8. The driver should be instructed to park the vehicle at non-crowded place.
9. Mass gathering at the demonstration points should be minimized for a while and the demonstration should be carefully video graphed/photo graphed at the crucial stages so as to disseminate the awareness about the demonstration through the local media channels or newspapers.
10. The officials at the tour to the fields and hinterlands of the country (such as AICRP monitoring) should ensure that they stay and eat only at the place where proper hygiene is practices and the place should not be crowded.
11. The equipments/tools used for the demonstration of the technologies should be properly sanitized/ washed with soap water whenever required.
12. It is desirable to not to undertake any interventions for time being in the red zones and officials are advised to not to undertake any long-distance journey in or through the orange and red zones.
13. Use online training module for conducting trainings so as to avoid physical gathering at one place.

K) ADVISORY FOR TRAVELLING

Before Travel

1. Make sure your organization and its employees have the latest information on areas where COVID-19 is spreading.
2. Based on the latest information, your organization should assess the benefits and risks related to upcoming travel plans.
3. Avoid sending employees who may be at higher risk of serious illness (e.g. older employees and those with medical conditions such as diabetes, heart and lung disease) to areas where COVID-19 is spreading.
4. Make sure all persons travelling to locations reporting COVID-19 are briefed by a qualified professional (e.g. staff health services, health care provider or local public health partner).

5. Consider issuing employees, who are about to travel, with small bottles of alcohol-based hand rub. This can facilitate regular hand-washing.

During Travel

1. Encourage employees to wash their hands regularly and stay at least one meter away from people who are coughing or sneezing.
2. Ensure employees know what to do and whom to contact if they feel ill while traveling.
3. Ensure that your employees comply with instructions from local authorities and any local restrictions on travel, movement, or large gatherings where they are travelling.
4. Keep record of people contacted and place visited.

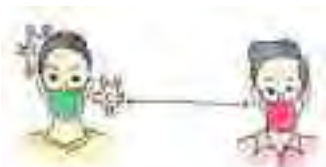
After Travel

1. Employees who have returned from an area where COVID-19 is spreading should monitor themselves for symptoms for 14 days and take their temperature twice a day.
2. If they develop even a mild cough or low-grade fever (i.e. a temperature of 37.3 C or more) they should stay at home and self-isolate. This means avoiding close contact (less than 1 m) with other people, including family members. They should also call their health care provider or the local public health department, giving them details of their recent travel and symptoms.

L) GENERAL MITIGATION MEASURES

1. On suspicion about catching the infection, isolate yourself from the others.
2. Maintain quarantine.
3. Consult doctor and go for testing.





Maintain the Physical distance of 1 meter or six feet



Maintain physical distances on road and market



Follow Respiratory Hygiene



People in Rural areas should also follow physical distancing at public place



Avoid exchanging the equipments or sanitize the surface before use



Proper hand wash and sanitization



Avoid Mass gathering at marketplace or work place



Follow physical distancing while taking any farm operations



Use Hand Gloves



Maintain distancing during lunch in the field and avoid sharing utensils



Do not spit at public places



Do not urinate at public places like market yards



Thermal scanning at entry points



Always sanitize the vehicle and its surface like steering, door handles etc



Follow digital transactions as far as possible



Do follow distancing on workplace



Sanitize the farm equipments before use



Always use Arogya Setu App



Firms/businesses owners should keep record of visitors



Frequently sanitize your hands while visiting market/shops/office etc



Use ICT tools to avoid physical proximity



Avoid sharing pen or writing materials at public place like market/shops/office etc



Sanitize the handles of door of vehicle/office/workplace before use



Park vehicles only at designated places and avoid parking on crowded places



Follow traditional Indian way of greetings each other



Always cover your mouth while coughing or sneezing



Consult doctor immediately on exhibiting any symptoms



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