

ICAR-Indian Institute of Water Management, Bhubaneswar

Agro-Advisory to farmers under prevailing COVID-19 situation (May, 2020)

1. Maintenance of Personal Health and Hygiene

- ❖ Social distancing of at least 1 to 2 meter to be maintained among the farm workers during all agricultural operations.
- ❖ Always wear mask during farm operations. Chunni, gamcha, towel, rumal or any other cloth can be used as mask to cover nose and mouth. The masks once worn may be cleaned in soap for next use.
- ❖ All farm equipment and accessories used for harvesting, threshing and other activities to be sanitized by keeping in 3% (3 gm in 100 ml water) bleaching powder solution for 30 minutes before, after and during farm operations.
- ❖ All farm equipment and accessories used for harvesting, threshing and other activities are to be kept in hot sun for their disinfection.
- ❖ Frequently wash your hands with soap and don't touch your nose, eyes & mouth with fingers.
- ❖ When coming to home from outside, keep your dress materials outside of your room. Touch other items only after washing your hands in soap thoroughly.
- ❖ Restrict your movement as much possible and try to stay home.
- ❖ Download 'Aarogya Setu mobile app' and install in your mobile phone for getting various information relating to Covid-19.
- ❖ All should bring their food and water individually, should eat separately, and should not share.
- ❖ While working in the field, farmers are advised to put cap and gamucha in their head to avoid sunstroke causality.

2. Water Management advisory

- ❖ Summer ploughing should be practiced with land levelling and bunding should be done. .
- ❖ Avoid using urban wastewater for irrigation. If it is the only irrigation source, then do not use directly from wastewater channels or source. Allow to settle for at least 48 hours after using bleaching powder at the rate of 4-5 gram per 1000 litre water.
- ❖ For conservation of rain water, the farmers should repair and reshape the field bunds and contour bunds with suitable heights, excavate farm ponds, remove sediments (desiltation) from existing ponds, lining of ponds to be done.
- ❖ Clean and maintain pond-dykes, apply organic manures for successful on-dyke horticulture; and clean approach channel and/ or inlet-pipe to ensure diversion of excess water delivered through canal to water storage pond.
- ❖ All types of wells need to be cleaned for enhancing capacity and to improve water quality.

A) Field crops

- ❖ In sugarcane, practice mulching using sugarcane trashes or other suitable locally available material and alternate furrow irrigation to save water.
- ❖ Application of pesticides like Imidacloprid, Fipronil, Chlorpyrifos is suggested to control termite damage in summer crops.
- ❖ Apply irrigation as per crop water requirement using available surface /groundwater resources.
- ❖ It is suggested to drain excess water from paddy fields after dough stage.
- ❖ For green manuring, dhaincha should be sown on the last week of May after incorporation of FYM and compost.

B) Vegetable and fruit crops

- ❖ Paddy straw mulching @5 to 10 t/ha for pointed gourd and spray Carbendazim (1.5 ml in 1 litre water) to control fungal wilt.
- ❖ Supplemental/life-saving irrigation from Water Harvesting Structures/Check Dams/Rubber Dams for summer vegetables like watermelon, cucumber, okra and cowpea.
- ❖ Soil application of Cartap hydrochloride @ 25 kg/ha to control fruit & shoot borer in brinjal.
- ❖ Apply 2g Chloromethanol or 2g Oxycarboxin in 1 litre of water to control rust disease in cowpea
- ❖ Apply *Trichoderma harzianum* or *T. viride* (25-50 g/plant), neem cake (250-500 g/plant) or Carbofuran (50 g/plant) in basin of root-knot infected guava trees.
- ❖ Thick mulch with coconut leaves (15 no.s) or any other material should be applied in the basin area (1.8 m radius) of coconut to conserve moisture.
- ❖ Farmers should stagger the harvesting of summer vegetables so as to minimize the price loss and post-harvest wastages.
- ❖ Do not to use urban wastewater for irrigation of vegetable crops and harvested produce should not be washed with wastewater

3. Water management advisory for grow out fish culture:

- ❖ Non-availability of pellet or floating fish feed during lock down can be substituted by locally available rice bran, groundnut oil cake
- ❖ Fortnight application of RCD and lime to maintain plankton as natural feed in absence of supplementary feed.
- ❖ Key to water management: Avoid 4 'O's – over stocking, over feeding, over fertilizer and over medication.
- ❖ Harvest phase wise and to sell at local market is advisable. Farmers must explore the option of 'off-market' sale or what they call it as 'sell-from-farm'.
- ❖ Reduce feeding to reduce the growth rate of the fish to delay harvesting. Produce fish feed using locally available ingredients (rice bran, Groundnut cake, Mustard cake).
- ❖ Avoid water exchange and prefer water top-up to minimize water loss and pumping cost. Use aerators if available to avoid oxygen depletion problem.

4. Water management advisory for livestock:

- ❖ Animals should be provided with chaffed dry fodder (hey or bhusa) after soaking in water and they should be given enough drinking water.
- ❖ Persons handling animals and feed should clean their hands and wear masks.
- ❖ Livestock farmers are encouraged to produce durable milk products like, ghee during this lockdown period.
- ❖ Due to cessation of community grazing, the farmers are advised to utilize locally available ingredients like oilcakes, rice/wheat straw for animal feeding.

5. General advisory to farmers

- ❖ The water users' associations (WUAs) should carry out maintenance work of canal networks and lift irrigation points before onset of monsoon
- ❖ Farmers should avail agriculture cooperatives for input procuring and cooperative banks for short *kharif* loans.