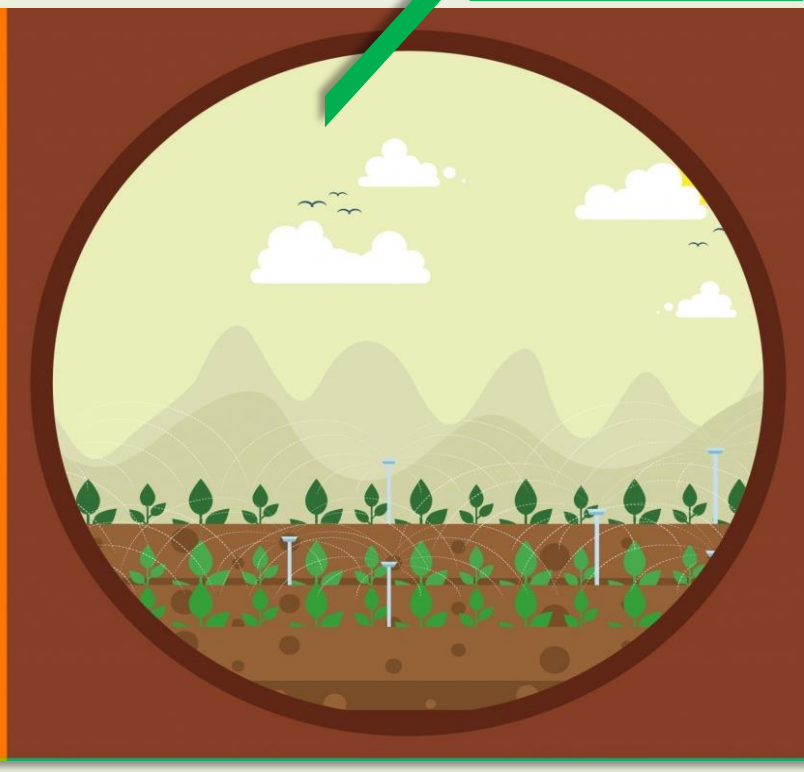
# Agro-Advisory for the State of Maharashtra

## February 23-March 04, 2021

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# Agro-Advisory for the State of Maharashtra for 23 February - 04 March, 2021

**Advisory No. NIASM/MH/21-05** **Date: February 22, 2021**

## 1. Weather Forecast (As per India Meteorological Department, New Delhi)

- Maximum temperature may vary between 28-32 ºC, remaining 4-5 ºC below normal in 1st week and up to 3 ºC below normal in 2nd week in most parts of the state.
- Minimum temperature may vary between 14-18 ºC, remaining up to 3 ºC below normal in most parts of the state.

## 2. Agro-advisory

### 2.1. Crop Management

- In summer **groundnut**, farmers should go for gap filling wherever necessary. Care should be taken to keep the field weed free for at least initial 40 days as the crop is highly susceptible to weed infestation due to its slow growth habit. First weeding should be done at about 20-25 days after sowing and subsequently repeated at 12-15 days interval till the crop has full canopy cover.
- Farmers should carry out harvesting of matured *rabi* crops such as **wheat, chickpea, pigeon pea, *rabi* sorghum** followed by their threshing and safe storage.
- In **sweet orange** *ambia bahar* during this period watering to be done @ 40-48 L per plant per day.
- In **dragon fruit** pulverize the soil near root zone and perform earthing-up to cover open roots if any.
- After pruning in **custard apple**, apply farm yard manure 10-12 t $ha^{-1}$ by pulverizing plant basins and start irrigation 16-24 L per plant per day.
- In case of newly grafted **vineyards**, retain 2-3 buds of scion with recut. If recut done already, protect sprouting buds from beetle infestation by spraying Azadirachtin 1% @ 1 ml $L^{-1}$.

### 2.2. Managing Atmospheric Stresses

- To prevent berry cracking in **grape** avoid moisture stress (excess/deficit).
- Defer or minimize irrigation in **dragon fruit** in deep black soil, however, limited irrigation to be provided in shallow soils to reduce sunburn severity during summer.

### 2.3. Managing Soil Stresses

- In orchard crops, proper mulching is strongly recommended to preserve the soil moisture, to reduce the salinity build up at root zone and for enhanced white root development.
- As dry weather is prevailing, apply irrigation to **sugarcane, chickpea, wheat, safflower, vegetables and orchards** to avoid soil moisture stress.
- To reduce fruit dropping in **mango** orchards, apply irrigation at an interval of 15 days.

### 2.4. Managing Biotic Stresses

- Spray *Trichoderma harzianum* culture @ 5 ml $L^{-1}$ in ready to harvest grape orchard to protect from post-harvest losses due to **mould** formation.

- Spray wettable sulphur @ 0.2% for management of powdery mildew and zineb @ 0.2% for anthracnose management and Azadirachtin 1% @ 1 ml $L^{-1}$ to control **hopper infestation** in mango.
- **Fruit fly** in mango: Set up methyl eugenol para-pheromone traps 8 traps/acre. If Fruit Fly is very serious (> 5/Surveillance trap), give bait sprays on the tree trunks at weekly interval. (Bait spray is prepared by mixing 100g of jaggery in one litre of water to which 2 ml of Deltamethrin (2.8 EC) is added).
- For management of **sapota leaf spot** spray Carbendazim @ 0.1%.
- To control **pod borer** in chick pea: set up heli-lure and Spodo-lure pheromone traps at 8 traps/acre. Spray the crop with Flubendiamide 480 SC at 0.5 ml $L^{-1}$ of water.
- **Fall Armyworm (FAW)** in maize: Erect 8 pheromone traps/acre. Spray the crop with Azadirachtin at weekly interval at 3 ml $L^{-1}$ of water. Under severe condition spray the crop with Emamectin benzoate at 0.2 g $L^{-1}$ or Spinetoram 11.7% SC 2 ml $L^{-1}$ of water.

## 2. 5. Managing stresses in Animals

### 2.5.1. Livestock

- To protect animals from heat stress, keep the animals under shade.
- Allow the animals for grazing during early morning & late evening hours.
- Feed animals with sufficient quantity of dry and green fodder to maintain the milk production of the dairy animals.
- Provide proper ventilation to the animal sheds.
- Provide round the clock clean and potable drinking water to animals
- Provide mineral mixture 30-40 g/day to cattle for improving the production and reproduction efficiency.
- There is very high risk of Anthrax in Parabhani and Pune districts. Haemorrhagic Septicaemia (HS) is most likely to occur in Ahmednagar, Nashik and Hingoli districts, which are having very high risk. There is very high risk of Foot and Mouth disease (FMD) in Ahmednagar and Nashik districts. Enterotoxaemia (ET) may occur in Satara and Latur districts.
- There is very high risk of Peste des Petits Ruminants (PPR) in six districts of Maharashtra, viz. Ahmednagar, Dhule, Jalgaon, Nanded, Nandurbar and Nashik districts and Pune districts is having high risk. Vaccination for HS, FMD and PPR (animals above 3 month of age) may be done in consultation with the local veterinarians and as decided by state animal husbandry authorities.
- There is very high risk of Sheep and Goat pox in Ahmednagar, Nashik, Pune, Satara and Sangli districts and Black quarter (BQ) in Ahmednagar, Aurangabad and Latur districts. Vaccination may be done in consultation with the local veterinarians.
- There is very high risk of Theileriosis in Ahmednagar, Nashik and Sangli districts. Control of ecto-parasites in livestock should be done using suitable acaricides in consultation with local veterinarians.

### 2.5.2. Fisheries

- Common carps breeding and larval rearing activities can be carried out in hatcheries therefore care should be taken during handling of brooders.
- Brooders should pass with least stress possible during the time of harvesting to breeding unit, hormonal injection and releasing into spawning pool or hapas.
- The nursery and rearing pond should be prepared viz. cleaning and cultivation of pond bottom, liming, manuring and fertilization before the stocking of fish seed.

- During stocking of seed, should pass with least stresses possible. Therefore, seed must be handled with care and released gently by means of acclimatization.
- There will be chances to infection of parasite like Argulus especially on carps can be controlled by manually removing affected fish and disinfecting with solution of KNnO4 (doses: 5 ppm).
- During this season, some ponds especially farm ponds are more susceptible to excessive algae growth and such large quantities of algae die and decompose, the amount of dissolved oxygen in the water decreases. Ultimately mass mortality of stocked fish occurred. Therefore, do not apply fertilizer (5-6 months cultured ponds).
- In case of cage culture partial harvesting can be workout depending upon local market.

## 3. COVID 19 - Precautionary measures for agricultural activities

### 3.1. General Advisory as per Ministry of Agriculture, Govt. of India

- Strictly follow social distancing and avoid contacts with outsiders with unknown history or persons migrated from red quarantined zones.
- In manual field operations of harvesting/picking, accomplish the operation in 4-5 feet spaced strips assigning one strip to one person.
- Stagger the field operations wherever possible and avoid engaging more number of persons on the same day.
- Prefer mechanized operations over the manual wherever feasible.
- All machines should be sanitized at the entry point and at regular intervals.
- All transport vehicles, gunny bags or other packaging material should be sanitized.

### 3.2. Livestock and Poultry

- Wash hands with soap and water before and after milking of lactating animals and clean the utensils thoroughly.
- Don’t allow visitors to enter animal premises and use mask and maintain social distancing while distribution/sell of milk.
- Use of hand sanitizer or washing hands frequently need to be practiced routinely while carrying out various day to day operations.
- All the bio-security measures need to be followed strictly in the poultry farms.

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