



Agro-Advisory for the State of Maharashtra

October 16-29, 2020



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Advisory No. NIASM/MH/20-13

Date: October 15, 2020

1. Weather Forecast Summary for 16-29 October, 2020 (As per IMD, New Delhi)

- Rainfall may vary between 2-10 mm/day, remaining above normal in most parts of the state.
- The maximum temperature may vary between 28-32 °C, remaining 1-3 °C below normal in most parts of the state.
- In the first week, the minimum temperature may vary between 18-22 °C, remaining up to 1 °C below normal in Konkan and Goa region and up to 1 °C above normal in rest of the state.
- In the second week, the minimum temperature may vary between 16-20 °C, remaining 1-2 °C below normal in most parts of the state.

2. Agro-advisory for the period October 16-29, 2020

2.1. Crop Management

- Complete the harvesting of matured kharif crops (**green gram/black gram/soybean**) preferably when there is no rain. Ensure proper drying of pods followed by threshing and safe storage.
- Field preparation should be done for *rabi* season crops (**chick pea, jowar**).
- Seed treatment with 2 g Bavistin + 2 g thiram per kg seed followed by application of 25 g of biofertilizer i.e., azospirillum (for jowar)/Rhizobium (for **chick pea**) and 25 g PSB per kg seeds is recommended prior to sowing.
- Complete forward pruning in **grape** looking in to dry spells during return monsoon showers so that Hydrogen cyanamide (1.5 to 2%) paste used for bud-break should not get washed off.
- Shoot thinning in pruned **grape** orchard to be done at the earliest between 15-18 days after pruning, to avoid loss of food storage in canes.
- Pruning of **pomegranate** plants for '*hast bahar*' to be executed only after imposing moisture stress and getting desired defoliation.

2.2. Managing Atmospheric Stresses

- Undertake intercultural operations only after current spell of rain.
- To avoid **sun-scorching** in new orchard plantations, train the plants erect by putting stakes on south-west side.

2.3. Managing Soil Stresses

- Drain out excess water from water logged fields at the earliest so as to avoid permanent damage to field crops and also orchards. Spray potassium nitrate @ 5 g L⁻¹ for revival of fruit trees after draining out water.

- Immediately after pruning in grape and pomegranate apply 19-19-19 @ 2 kg ac⁻¹ day⁻¹ through drip irrigation for 3-weeks. However, in case of calcareous calcareous soils replace 2 doses per week with sulphate of potash @ 2 kg ac⁻¹.
- Apply 12.5t ha⁻¹ of FYM and/or compost during field preparation. Farmers must apply fertilizers according to soil testing recommendations.
- Complete the planting of sugarcane by third week of October. Intercropping with mustard, pea, gram, potato, cabbage, radish, garlic, etc. can be done successfully in this crop.
- The general fertilizer dose for sugarcane planting is 275-65-115 kg of N, P and K can be adopted. The total dose of P and K should be applied basally whereas N is applied in 4 split doses. It means 69 kg N (150 kg urea ha⁻¹) should be applied at the time of planting. Fifty kg of micronutrient mixture per ha made up of 20 kg of ferrous sulphate, 10 kg of manganous sulphate, 10 kg of zinc sulphate, 5 kg of copper sulphate and 5 kg of borax may be applied basally in the planting furrows.

2.4. Managing Biotic Stresses

- **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.
- To manage **white grubs in sugarcane** erect light traps to attract “white grub adults”, which emerge after receiving rain. Apply fungal formulation of *Beauveria brongniartii* @ 2.5 kg ha⁻¹ mixed with FYM or press mud at the base of the clumps in the furrows. Drench the root zone of crop with Chlorpyrifos 20 EC @ 4.0 l ha⁻¹ or quinalphos 25EC @ 3.2 l ha⁻¹ three weeks after the adult emergence. Furrow application of insecticides such as, Thiamethoxam 25 WS @ 1.9 l ha⁻¹ or fipronil 5FS @ 2.0 lt/ha.
- Prune and dispose diseased and dried branches of fruit trees and carry out prophylactic spraying of Bordeaux mixture 1% and wettable sulphur 2 g L⁻¹ to minimize **inoculum load**.
- After forward pruning in grape, systemic fungicide sprays for **downy mildew** at 3-leaf and 5-leaf stages are mandatory, although the disease is not observed.

2.5. Managing stresses in Animals

2.5.1. Livestock

- The cows/buffaloes showing the symptoms of heat should be mated within 12-18 hours of their exhibiting the signs of heat/estrus.
- Control of ecto-parasites in livestock should be done using suitable acaricides.
- The floor of the animal shed should be kept clean and dry.
- The animals may be kept in loose housing system, if possible, to save the life of the animals in emergency conditions.
- The animal shelter should be repaired for preventing leakage of rain water in the shed. Prevent the animal’s exposure to direct rainfall for longer period.

- The feed and fodder should be properly stored to prevent the growth of moulds.
- Excess green fodder if available may be stored in form of silage for its use during lean/scarcity periods.
- Haemorrhagic Septicaemia (HS) is most likely to occur in Dhule, which is having very high risk.
- There is very high risk of Peste des Petits Ruminants (PPR) in five districts of Maharashtra; Ahmednagar, Aurangabad, Jalgaon, Nashik and Pune districts and there is high risk in Gadchiroli district. Vaccination for Haemorrhagic Septicaemia and Peste des Petits Ruminants (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 Foot and Mouth disease (FMD), Black quarter (BQ) and Sheep and goat pox in Ahmednagar district. There is very high risk of swine fever in Ahmednagar and Jalgaon districts. Vaccination may be done in consultation with the local veterinarians.

2.5.2. Fisheries

- Aquaculture farmer can apply high protein starter feed with 30-35 % of protein to fry and fingerlings seeds.
- Check the productivity of fish pond for plant and animal plankton.
- Ammonia can be checked in the stocking pond of fish (0.05 ppm) and shrimp (0.01 ppm)
- Dissolved oxygen (4-6 ppm) and pH (7.5-8.5) and water temperature (25-30 °C) may be frequently monitored.
- Maintain the farm with suitable disinfectant using bleaching powder
- Water in the ponds should be maintained to optimal level by siphoning system in the events of excess rains.

3. COVID 19 - Precautionary measures for agricultural activities

3.1. General advisory as per Ministry of Agriculture, Govt. of India

- As with passing day more and more relaxation has been provided from Government side, more care needs to be taken particularly social distancing and avoiding contacts with outsiders with unknown history or persons migrated from red zone.
- 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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