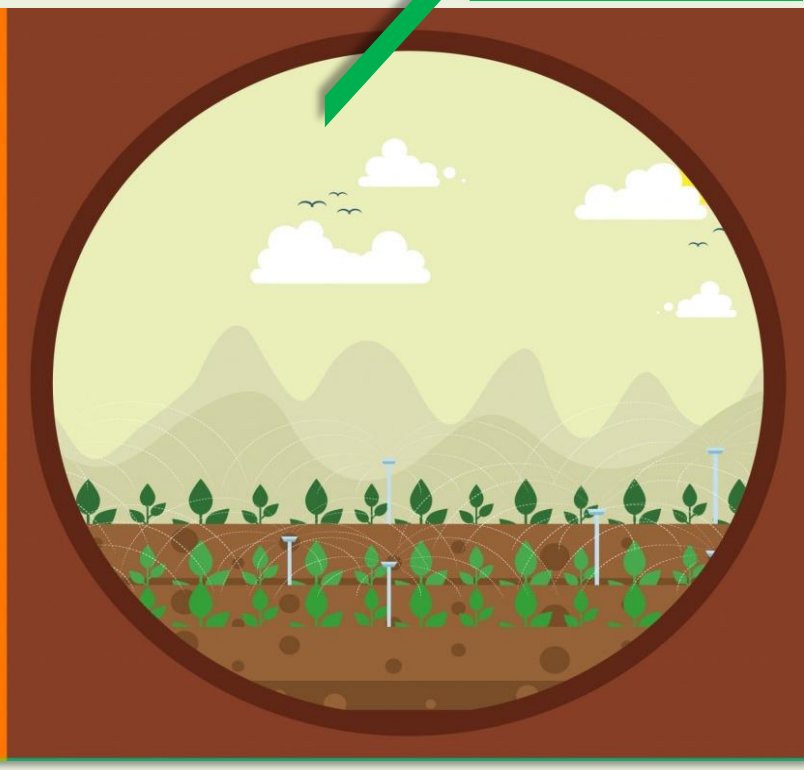
Stress Management Agro-Advisory for the State of Maharashtra

January 02 - 15, 2026



Compiled & Edited by :
RN Singh, Scientist (Agricultural Meteorology)

Advisory Committee:
KK Pal, NP Kurade, S Kochewad, V Salunkhe, Neeraj Kumar, Rajkumar, Aliza Pradhan, PS Khapte, Vijay Kakade, Pravin Taware & Sunil Potekar

Technical Support :
Pravin More, Tech. Officer (Computer)

ICAR-National Institute of Abiotic Stress Management
Baramati, Pune, Maharashtra

Managing Abiotic and Biotic Stresses in Agriculture

Agro-Advisory for the State of Maharashtra

(January 02 - 15, 2026)

Advisory No.: NIASM/MH/26-01 **Date: Jan 02, 2026**

---

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

1.1. Rainfall

- No rainfall is expected across the state during the next two weeks.

1.2. Temperature

- Maximum temperature is likely to range between 24–28ºC, remaining 2-4ºC below normal in most parts of the state.
- Minimum temperature is expected to range between 8–12ºC, remaining 2–3ºC below normal in most parts of the state.

2. Managing Abiotic Stresses

2.1. Atmospheric Stresses

2.1.2. Livestock

- Avoid overcrowding of animals in livestock shed
- Repair the roofs of shed and ensure that animal sheds are leak-proof and well-ventilated.
- Control of ecto-parasites and endo-parasites should be carried out
- The floor of the animal shed should be kept clean and dry
- Maintain the surrounding of animal shed clean and hygienic and remove the unwanted vegetation nearby the sheds.

2.2. Water Stresses

2.2.1. Crops

- **Vegetable crops:** Use of mulching and drip irrigation system for new transplantation in vegetable crops for efficient use of water and to avoid weed growth.
- Light irrigation is to be applied in vegetable crops as and when required.
- **Brinjal:** Use of grafted eggplant seedlings for transplanting. Foliar application of salicylic acid (0.3-0.5g/L) at monthly interval after transplanting will help to overcome the effect of water stress.

2.2.2. Livestock

- Silage can be prepared if excess green fodder is available for future use during scarcity periods.
- Mixed silage of sugarcane tops up to 50% level may be prepared with jowar or maize fodder in case excess green fodder is available. The silage thus prepared may be useful for feeding livestock during the upcoming summer/ scarcity period.
- Store feed and fodder in dry, well-ventilated areas to prevent mould growth and spoilage.

2.2.3. Fisheries

- Reduce the feeding rate as feed intake decreases with decrease in temperature. Hence, it is essential to reduce the feeding rate by 50-75% depending on the temperature.
- It is suggested to keep water depth up to 2 meter only to avoid temperature effect during winter season.
- The farmers are advised to aerate their ponds either by adding fresh water or by using aerators, especially during early hours of the day.

- Farmers are advised to use low protein diets. It is also necessary to reduce/stop adding organic manures such as cow dung, poultry droppings, and pig dung in the pond as rate of decomposition of organic manures declines due to poor microbial activity during winters.
- To avoid the fungal, bacterial and parasitic diseases during winter, fish farmers are advised to use potassium permanganate @ 1-2 kg/acre or limestone @ 50-75 kg/acre. Salt application @ 100 kg/acre also helps in protecting fish against disease outbreak during winter season.
- Time to time the growth of the fish may be checked for better maintenance of fish stock and protection from diseases.
- The unutilized feed in the feeding tray may be checked frequently to avoid ammonia toxicity.
- Monitor the water quality parameters viz. dissolved oxygen (6.0-7.5 ppm), pH (7.0-8.5), ammonia (0.05 ppm), nitrate (50-150 ppm), nitrite (0.1 ppm), CO_2 (less than 10 ppm), and H_2S (0.002 ppm) in fish pond carefully.

2.3. Soil Stresses

- **All orchards:** Pulverize the soil in tree basins to break compaction of top soil to improve soil aeration and weed management.

3. Managing Biotic Stresses

3.1. Crops

- **Guava**: Use pheromone trap bottles containing 100ml solution of 0.1% Methyl eugenol and 0.1 Malathion for integrated management of fruit fly pest. Tie the trap bottles at 1.5 to 2 meter height in orchard @ 8 Nos/ ha.
- **Sweet orange**: To manage fruit sucking moth pest, spray neem oil @ 10 ml/L water and destroy all the fallen fruits by burying in the pit. Poison baiting with 10 ml Chlorpyriphos 20EC mixed with 100 g jaggery and 100 ml sweet orange juice in 900 ml water (two per 25 trees).
- **Acid lime:** If citrus trees are showing oozing symptoms of gum then scrap the area with a sharp knife and apply Mefenoxam MZ-68 or Fosetyl Al paste on it. Apply Bordeaux paste on the tree trunk up to height of 60 cm by paint brush.
- **Pomegranate:** To manage thrips, install yellow/ blue sticky traps @ 75 per hectare randomly at 15 cm below from the canopy top of the plant. To control fruit borer infestation, remove all the damaged fruits with holes and dispose them by burying in pit and take a spray with any one of the insecticide Cyantraniliprole 10.26% OD @ 0.75 ml/L or Chlorantraniliprole 18.5% SC @ 0.75 ml/L or Flonicamid 50% WG @ 0.75-1.0 ml/L water.
- **Brinjal:** To manage fruit and shoot borer, use water trap/Leuci lure pheromone traps @ 12/ ha to monitor, attract and kill male moths and change the vial once in three weeks. Also spray Chlorantraniliprole 18.5 SC @ 0. 3 ml/L once in 15 days depending upon the population of the pest.
- **Solanaceous and Cucurbitaceous vegetables:** Fluctuation in daily mean temperature may increase the infestation of mites and to manage them, spray Spiromesifen 22.9 SC @ 0.5 ml/L or Abamectin @ 0.5 ml/L.
- **Dragon fruit:** Pruning of diseased cladodes followed by fungicide spray Mancozeb + Carbendazim @2.5g/L or Bordeaux mixture @10g/L after harvesting fruits.
- **All vegetable crops:**
  - To avoid incidence of disease and pest in solanaceous vegetable crops, maintan optimum /recommended plant spacing.
  - Procure healthy and disease-free seedlings from certified nursery only.
  - Spray liquid formulation of *Trichoderma* sp. @ 5ml/litre as a preventive measure for effective management of diseases
  - To manage soil-borne pathogens, apply *Trichoderma* sp. + *Pseudomonas* sp. @ 1litre/acre through drip irrigation system.
  - Follow integrated pest and diseases management practices such as disease-free seedlings from certified nursery, drenching with copper oxychloride @ 2.5 g/L of water to avoid post-

transplanting damping-off in addition to use of systemic insecticides like Imidacloprid @ 0.5 ml/L to manage sucking pests.

3.2. Livestock

- There is a very high risk (VHR) of Haemorrhagic Septicaemia (HS) in the Nashik, and Pune districts and VHR of Anthrax in Kolhapur, Parbhani, Sindhudurg and Thane districts. VHR of Black quarter (BQ) and Enterotoxaemia in Ahmadnagar, Kolhapur, Nagpur, Parbhani, Sindhudurg and Thane districts.
- Affected animals may be isolated and treated with suitable antibiotics and vaccination is to be done in consultation with the local veterinarians.
- There is a very high risk of Peste des Petits Ruminants (PPR), Sheep and Goat pox and Classical Swine Fever (CSF)) in Ahmadnagar, Jalgaon, Nagpur, Nashik and Pune districts.
- There is a very high risk of Foot and Mouth Disease (FMD) in Ahmadnagar, Kolhapur, Nagpur, Parbhani, Sindhudurg and Thane districts.
- There is a very high risk of Lumpy Skin Disease (LSD) and African Swine Fever (ASF) in Ahmadnagar, Akola, Amravati, Bid, Buldana, Chandrapur, Gadchiroli, Hingoli, Latur, Nagpur, Nashik, Osmanabad, Palghar,, Pune, Sangli, Thane, Wardha and Washim districts.
- Vaccination for FMD, PPR, LSD, ASF CSF and Sheep and Goat Pox in the concerned districts may be done in consultation with the local veterinarians.
- VHR of Fascioliasis in Ahmadnagar, Kolhapur, Nagpur, Parbhani, Sindhudurg and Thane districts.
- There is a very high risk of Theileriosis in Ahmadnagar, Mumbai, Mumbai Suburban, Nashik, and Pune districts. VHR of Babesiosis in Kolhapur, Parbhani, Sindhudurg and Thane districts. and Trypanosomiasis in Ahmadnagar, Nashik and Pune districts.
- Ensure 100% vaccination with timely boosters for PPR, HS and S & G pox alongside routine testing in VHR districts to enable early disease detection.
- Enforce strict biosecurity protocols, including controlled farm access, equipment disinfection, and quarantine for newly introduced animals.
- Control vector populations through integrated management practices, including tick control, fly-proof shelters, and molluscicide use in snail-infested areas.
- Monitor animals for any sickness particularly related to digestive, dermal, or respiratory problems, and treat them by consulting a veterinarian.
- Regular deworming should be carried out by consulting local Veterinarians.
- For treatment of ectoparasitic infestation, dipping (if not done during the last three months) needs to be carried out with Ectomin/Butox, post-shearing on sunny days.
- Anti-parasitic drugs should be used under the guidance of a veterinarian.
- Spot the sick animals and isolate them in a separate shed for treatment.

4. General

- **Citrus:** Looking into deficiency symptoms at the time of growth in new flush, spray solution containing Sulphates of Zinc (0.5%), Manganese (0.05%), Iron (0.25%), Magnesium (0.5%), Boron (0.1%) and Molybdenum (0.003%). In addition to that, apply 25 g each of Sulphate of Zinc, Manganese and Iron per tree.

Disclaimer

ICAR-NIASM will not be liable for any direct and indirect damages or lost profit resulting from the use or misuse of the information in this advisory.