



National Agromet Advisory Service Bulletin



Friday 24th March 2017
(For the period 24th to 28th March 2017)

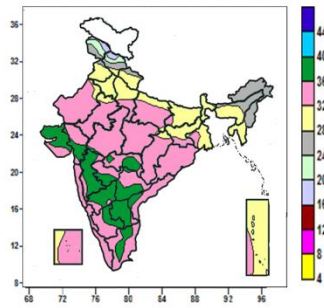


Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.

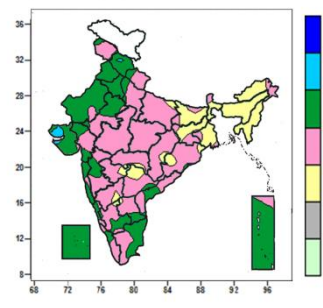
Weblink For
District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 22.03.2017

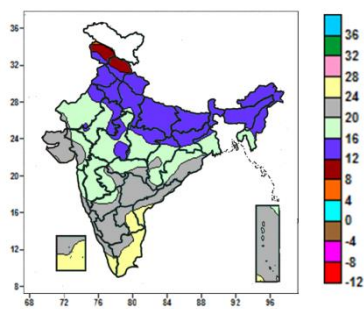
Actual Mean Maximum Temperature (°C) in India for the week ending 22.03.2017



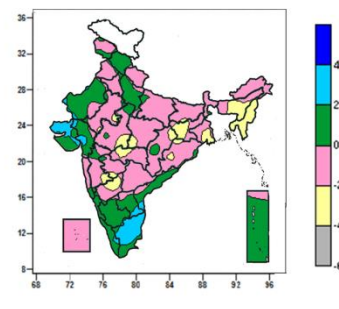
Mean Maximum Temperature (°C) Anomaly in India for the week ending 22.03.2017



Actual Mean Minimum Temperature (°C) in India for the week ending 22.03.2017

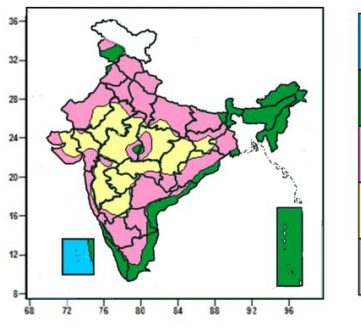


Mean Minimum Temperature (°C) Anomaly in India for the week ending 22.03.2017

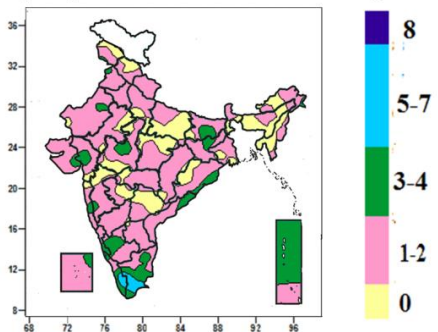


Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 22.03.2017

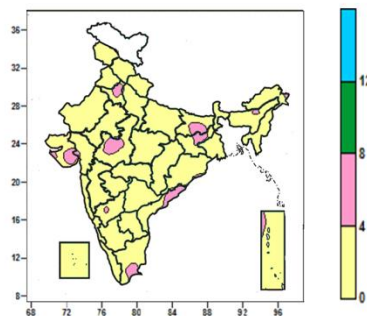
Relative Humidity (%) over India for the week ending 22.03.2017



Cloud amount (okta) over India for the week ending 22.03.2017



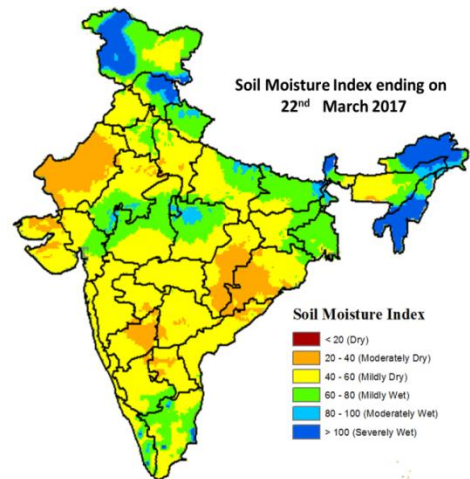
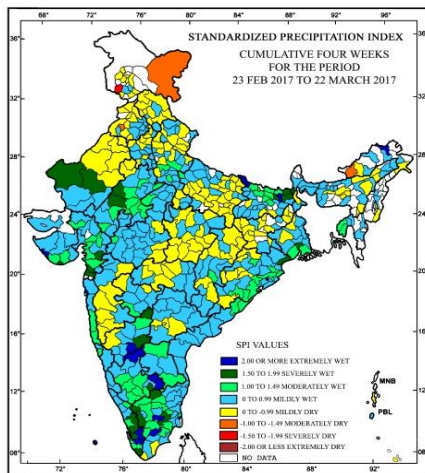
Wind speed (knots) over India for the week ending 22.03.2017



Standardised Precipitation Index Four Weekly for the period 23rd February to 22nd March 2017

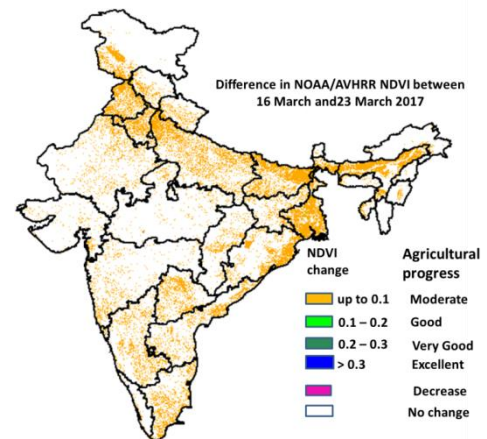
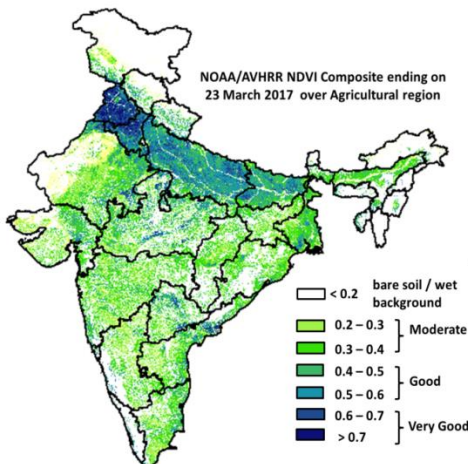
Soil Moisture Index for the week ending on 22nd March 2017

MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



NOAA/AVHRR NDVI composite ending on 23rd March 2017 over Agricultural region of India

Difference in NOAA/AVHRR NDVI between 16th and 23rd March 2017



Weather Forecast for next 5 days valid upto 0830 hours of 29th March 2017

- Maximum temperatures likely to rise by 2-3°C over northwest & East India; by 1-2°C over central India during next 2 days.
- No significant change in maximum temperatures over Maharashtra and Goa region during next 2 days and rise by 2-3°C thereafter.
- No significant change in temperatures over the rest parts of the country during next 2 days.

Weather Warning during next 5 days

- **24 March (Day 1):** Thunderstorms accompanied with squall/hail very likely at isolated places over Sub-Himalayan West Bengal & Sikkim and Assam & Meghalaya. Heat wave conditions very likely at isolated places over West Madhya Pradesh.
- **25 March (Day 2):** Thunderstorms accompanied with squall/hail very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Heat wave conditions very likely at isolated places over West Madhya Pradesh.
- **26 March (Day 3):** Heat wave conditions very likely at isolated places over Haryana and West Rajasthan.
- **27 March (Day 4):** Heat wave conditions very likely at isolated places over Haryana and West Rajasthan.

- **28 March (Day 5):** No Weather Warning.

Weather Outlook for subsequent 2 days from 29th to 31st March 2017

- Rain/thundershower likely at isolated places over northeastern states and adjoining east India and over Andaman & Nicobar Islands.
- Rain/snow very likely at a few places over Jammu & Kashmir and at isolated places over Himachal Pradesh.

**Meteorological sub-division wise detailed 5 day rainfall forecast (Mid day)
24th March 2017**

Met Sub-divisions	24 Mar	25 Mar	26 Mar	27 Mar	28 Mar
1. Andaman & Nicobar Islands	DRY	ISOL	ISOL	SCT	SCT
2. Arunachal Pradesh	FWS	FWS	SCT	ISOL	ISOL
3. Assam & Meghalaya	SCT	FWS	SCT	ISOL	ISOL
4. N.M.M. & T.	ISOL	FWS	SCT	ISOL	ISOL
5. S.H. West Bengal & Sikkim	ISOL	ISOL	ISOL	ISOL	SCT
6. Gangetic West Bengal	DRY	ISOL	ISOL	ISOL	ISOL
7. Odisha	DRY	DRY	ISOL	ISOL	ISOL
8. Jharkhand	DRY	DRY	DRY	DRY	DRY
9. Bihar	ISOL	ISOL	ISOL	ISOL	ISOL
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhand	ISOL	DRY	DRY	DRY	DRY
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	ISOL	DRY	DRY	DRY	ISOL
16. Jammu & Kashmir	DRY	DRY	ISOL	ISOL	SCT
17. West Rajasthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
20. East Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	DRY	DRY	DRY	DRY	DRY
25. Marathwada	DRY	DRY	DRY	DRY	DRY
26. Vidarbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	DRY	DRY	DRY	DRY	DRY
29. Telangana	DRY	DRY	DRY	DRY	DRY
30. Rayalaseema	DRY	DRY	DRY	DRY	DRY
31. Tamil Nadu & Puducherry	DRY	DRY	DRY	DRY	DRY
32. Coastal Karnataka	DRY	DRY	DRY	DRY	DRY
33. North Interior Karnataka	DRY	DRY	DRY	DRY	DRY
34. South Interior Karnataka	DRY	DRY	DRY	DRY	DRY
35. Kerala	ISOL	DRY	DRY	DRY	DRY
36. Lakshadweep	DRY	DRY	DRY	DRY	DRY

% Station Reporting Rainfall

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

Salient Advisories

- As thunderstorms accompanied with squall/ hail very likely at isolated places over **Sub-Himalayan West Bengal & Sikkim** on 24th, over **Assam & Meghalaya** on 24th & 25th and over **Nagaland, Manipur, Mizoram and Tripura** on 25th March, use hail net or hail cap for orchard crops and fruit vegetables to protect from mechanical damage. Provide support to banana, young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places.
- As heat wave conditions very likely at isolated places over **West Madhya Pradesh** on 24th & 25th and over **Haryana and west Rajasthan** on 26th & 27th March, apply light and frequent irrigation to the standing crops to cope up with the excess evaporative demand due to heat wave, mulching with straw/polythene or soil mulching to conserve soil moisture.
- As rain/thundershowers likely at many places over **Arunachal Pradesh** on 24th & 25th, over **Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura** on 25th March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Undertake harvesting of matured crops immediately and keep harvested produce at safer places.
- In **Madhya Maharashtra and Marathwada**, considering the rise in temperature, reduce the duration between two irrigation in vegetables like bitter gourd, cucumber, ridge gourd, bottle gourd and in water melon and musk melon. Also apply mulch with crop residue or plastic sheet to vegetables and orchards like pomegranate and banana. Spread 5 tonnes trash per ha in sugarcane fields for maintaining soil moisture. As prevailing day temperatures is above 36^oC and 2-3^oC rise is expected after 48 hours, spray Potassium Nitrate or Murate of Potash @ 500 g per 100 liters of water in orchards for decreasing the rate of evapotranspiration. In **Konkan**, maintain water level up to 5-7 cm in transplanted rabi rice. The Mango fruits are in maturity stage in some parts of Sindhudurg district. Harvest the matured fruits in the morning and evening hours at 80 to 85 % maturity. Keep the harvested fruits in shade to prevent spongy tissue disease.
- In **West Madhya Pradesh, Haryana and west Rajasthan**, in view of the heat wave forecast, grazing /feeding of cattle/goats may be done during morning/ evening hours. Keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule. Make arrangement of curtains and proper ventilation in poultry house.

Detailed Zonewise Agromet Advisories

SOUTH INDIA [TAMIL NADU, TELANGANA, ANDHRA PRADESH, KARNATAKA, KERALA]

- **Realised Rainfall:** Rainfall occurred over Bidar, Raichur and Koppal districts of North Interior Karnataka, Ballari and Chikkamagaluru districts of South Interior Karnataka, Nilgiris and Tirunelveli districts of Tamil Nadu, all districts of Kerala except Kannur, Kasargod, Kozhikode, Malappuram and Thrissur during the week. Weather remained dry over rest of the region.
- **Advisories:**
 - **Andhra Pradesh:**
 - In the Krishna Godavari Zone, prevailing weather conditions (hot and dry weather), keep optimum moisture by applying irrigation in rabi jowar at flowering to grain formation/ hardening stage. Provide irrigation to sugarcane, rice fallow green gram and black gram, crops as per requirement.
 - In the North Coastal Zone, continue planting of sugarcane and harvesting of maize.
 - In Anantapur district of the Scarce Rainfall Zone, prevailing high temperatures may cause damage to the newly planted banana. Farmers are advised to protect by covering mulch / providing shade.
 - In the Krishna Godavari Zone, prevailing dry weather condition is congenial for incidence of bud necrosis in groundnut. To control, spray Monochrotophos @ 1.5 ml/ litre of water.

- In the North Coastal Zone, prevailing weather condition is congenial for incidence of finger blast in ragi. To control, spray Carbendazim @ 1g/litre of water.
- In the Scarce Rainfall Zone, powdery mildew incidence is observed in mango crop which is likely to increase in the prevailing weather. For controlling powdery mildew, spray Karathane @ 1ml/ litre of water. If the powdery mildew persists, repeat after 3 weeks.
- In the Southern Zone, leaf curl disease is observed in chillies. To control, spray Fepronil @ 2 ml./litre of water.
 - **Telangana:**
 - In North Telangana Zone, as dry weather would prevail, continue harvesting of matured maize and groundnut.
 - In South Telangana Zone, incidence of mite is noticed in orange. To control ,spray Wettable sulphur @ 3 g/litre of water.
 - In North Telangana Zone, incidence of leaf blast was noticed in rice at panicle initiation stage in some parts of district. Spraying with Tricyclazole @ 0.6 g or Isoprothiolane @ 1.5 ml/litre of water (alternating, twice at 15 days interval).
 - **Tamil Nadu:**
 - In the Cauvery Delta Zone, as dry weather would prevail, undertake harvesting of rice fallow black gram and continue cultivation of blackgram (variety ADT5 under irrigated conditions). Provide irrigation to sesame, sugarcane and rice fallow cotton crops, since dry weather is expected in the next five days.
 - In the Western Zone, propping may be done to 5 months and above banana to avoid lodging. In order to overcome the fodder crisis during summer months, farmers are requested to allot 10 per cent of the irrigated land to fodder crops viz., Cumbu Napier Hybrid or any other fodder crops.
 - In the North Western Zone, undertake cultivation of green gram (short term 55-60 days) (variety, Co-8).
 - In the High Rainfall Zone, apply irrigation in rice, banana, coconut, rubber, black pepper and other horticultural crops due to receipt of low rainfall.
 - In the Western Zone, prevailing hot weather condition is favourable for sucking pest multiplication in tomato crop. Monitor and apply fish oil resin soap @ 25 g/litre of water to control the pest. Attack of rhinoceros beetle is observed in coconut. To control, remove the tree top debris and keep Naphthalene balls @ 3 to 4 number per tree along with sand.
 - In the Southern Zone, prevailing hot weather condition is congenial for incidence of grey mould disease in tomato. To control grey mould disease, ensure good drainage facility in the field during the night and remove decaying plant material from the plant bed.
 - In the South Zone, prevailing moderate cloud cover and moderate humidity conditions are congenial for the incidence of thrips in chilli. For controlling this pest, spray Imidachloprid 17.8 % SL @ 3 ml/10 litres of water.
 - **Kerala:**
 - In the Problem Area Zone, continue planting of banana and pepper and continue harvesting of *puncha* rice.
 - In the High Altitude Zone, continue nursery preparation for cardamom, harvesting of vegetables and land preparation for ginger cultivation.
 - In the Central Zone, continue land preparation for planting of ginger and turmeric. Provide adequate shade to transplanted coconut seedlings
 - In the High Altitude Zone, leaf rust disease may become severe in coffee (flowering stage) due to increase in relative humidity. To control, apply growth regulators like Planofix (50 ml in 200 litres of water) and swab the main stem and branches with 1% Carbaryl.
 - In the Northern Zone, apply organic manure @ 50kg/palm and neem cake @ 5kg/palm/year and drench the palm basin (2m radius) with 40 litres of 1% Bordeaux mixture at quarterly intervals to control basal stem rot in coconut.
 - In the Central Zone, leaf curling and stunted growth is observed in chillies due to thrips and virus attack. To control, spray Spiromesifen @ 0.8 ml/litre of water.
 - **Karnataka:**
 - In the Southern Dry Zone, Eastern Dry Zone, North East Transition Zone and North East Dry Zone, provide irrigation to mango (marble stage) orchard; this will help in better development of fruits. Provide irrigation to dry land horticultural crops and other field crops depending on soil and crop condition.
 - In Hill Zone, in view of increasing temperature, provide irrigation to groundnut crop and to the arecanut, coconut and black pepper gardens either in furrows or by drip irrigation. Each coconut tree requires 60-70 litres of water per day.
 - In North East Transition Zone, provide protective irrigation to crops which suffers from lack of soil moisture. Complete harvesting of sorghum, wheat and safflower as early as possible. To increase size and quality of the watermelon fruit, dip the lemon fruit size watermelon into 20 ppm (20 mg in 1 litre water) Gibrellic acid.
 - In North East Dry Zone, undertake summer deep ploughing to expose the pupae and eggs of insect/pests and weed seeds.
 - In Southern Transition Zone, continue land preparation for planting of Ginger/turmeric and harvesting of matured arecanut, coconut and rhizomes of ginger, turmeric.

- In North Transition Zone, complete harvesting of the crops (wheat, Bengal gram, sorghum) immediately after the maturity, to avoid reduction in quality of the produce due to exposure to unfavorable weather condition. Continue deep ploughing in the fields where harvesting is completed, which will reduce weeds and pest incidence in the next season.
- **Animal Husbandry**
- In the Scarce Rainfall Zone of Andhra Pradesh, in poultry, in view of the increase in temperatures, cover water tank and lines with gunny bags to provide cool water, ensure that cool drinking water is available throughout the day, use foggers and sprinklers to reduce temperature, cover roof with coconut tree leaves or grass, white wash roof and water tank to reduce heat absorption, ensure proper cross ventilation to avoid ammonia accumulation, use pedestrian fans to increase air flow and distribute feed in cooler parts of the day (early morning or late evening).
- In the High Altitude Zone of Tamil Nadu, to maintain milk yield in milch animals, keep the animals cool by sprinkling water during day time in summer season.
- In Eastern Dry Zone, North Dry Zone, Southern Dry Zone of Karnataka, apply 4-6 inch thick hay thatch as a roofing material on shed of animals. Spray water on the floor and roof of shelter periodically during peak hot hours which lowers the temperature and consequently reduces the heat load on animals; maintain proper ventilation for free circulation of air in the sheds; provide clean drinking water to livestock. Add electrolytes (KCl, NaCl and NaCO₃) in water and feed of poultry birds.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]

- **Realised Rainfall:** Rainfall occurred in Dibang Valley, East Kameng, East Siang, Lohit, Lower Dibang Valley, Tawang, Tirap, Upper Siang, Upper Subansari and West Siang districts of Arunachal Pradesh; Dhubri, Golghat, Hailakandi, Jorhat, Karbi Anglong, Karimganj, Kokrajhar, Lakhimpur and Sibsagar districts of Assam; East Garo Hills, East Khasi Hills and West Garo Hills districts of Meghalaya and Wokha district of Nagaland during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - As thunderstorms accompanied with squall/hail very likely at isolated places over Assam & Meghalaya on 24th & 25th and over Nagaland, Manipur, Mizoram and Tripura on 25th March, use hail net or hail cap for orchard crops and fruit vegetables to protect from mechanical damage. Provide support to banana, young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places.
 - As rain/thundershowers likely at many places over Arunachal Pradesh on 24th & 25th and Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura on 25th March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Undertake harvesting of matured crops immediately and keep harvested produce at safer places.
 - **Assam, Meghalaya & Arunachal Pradesh:**
 - In North Bank Plain Zone of Assam, as temperature condition are favorable, continue sowing of summer green gram and black gram and sowing of okra, ridge gourd and sponge gourd. Continue land preparation and sowing of directed seeded *ahu* rice. Continue land preparation and sowing of *bau* rice and sowing of direct seeded *ahu* rice.
 - In Upper Bramhaputra Valley Zone of Assam, continue land preparation and planting sugarcane in upland fertile land. Continue land preparation for sowing of *bao* rice in lowland. Undertake planting of banana.
 - In Barpeta, Bongaigaon, Dhubri and Goalpara districts of Lower Bramhaputra Valley Zone of Assam, continue transplanting of summer rice (early *ahu*).
 - In Hill Zone of Assam, continue land preparation for transplanting of early *ahu* (direct seeded). Continue land preparation and sowing of jute. Continue nursery raising of transplanted normal *ahu* rice and land preparation for sowing summer sesame, planting of ginger and spring sugarcane.
 - In Central Bramhaputra Valley Zone of Assam, continue sowing of summer green gram and black gram; nursery bed preparation for early *ahu* rice and land preparation and sowing of summer vegetables and Capsularis jute. Continue harvesting of matured wheat crop immediately in clear weather and keep in safer places. Continue harvesting of *rabi* pulses at the earliest and land preparation and planting of ginger and turmeric.
 - In Arunachal Pradesh, utilizing the realized and expected rainfall, continue transplanting of seedling of chillies, tomato, capsicum., nursery raising of cole crops in higher altitudes/ cold areas and planting of ginger. Undertake sowing of maize in higher altitudes.
 - In Meghalaya, continue nursery raising of brinjal and transplanting of tomato. Continue planting of ginger and spring potato. Undertake land preparation for sowing of maize in high and mid altitudes.
 - In North Bank Plain Zone and Barak Valley Zone of Assam, there is chance of attack of stem borer in *boro* rice at tillering stage. To control the pest spray Chlorpyrifos 50 EC @ 2 ml per litre of water or apply Darsban or Monocrotophos at the rate of 2 tea spoonful per 5 litre of water on a non rainy day.
 - **Nagaland, Manipur, Mizoram and Tripura:**
 - In Nagaland, short duration pulse crops and green manuring crops like dhaincha, sunhemp etc should be cultivated

as pre-*kharif* crop in fallow paddy lowland/ terrace rice field to enhance the soil fertility. Continue land preparation and sowing of summer maize, okra and green gram. Harvest matured crops at the earliest.

- In Manipur, complete transplanting of pre-*kharif* rice at the earliest. Maintain 5-8cm of water level after 3-4 days of transplanting. Continue land preparation for planting of ginger and turmeric. Continue planting of tapioca and sweet potato and land preparation for cucurbits.
- In Mizoram, continue harvesting of potato, early cole crops, carrot and radish. Continue sowing of maize (*jhum*), okra, cow pea, ginger and turmeric.
- In Tripura, undertake transplanting the young seedlings of summer brinjal & tomato to the main field. Complete sowing of cowpea. Maintain 4-5 cm standing water in the field of *boro* rice at maximum tillering stage.
- In Nagaland, in mandarin, to kill the trunk borer grubs, clean the bored holes of the infested trunk with iron wire and insert a cotton swab soaked in the mixture of kerosene and water (1:1) and plug with mud. Also spray with Bordeaux mixture @ 1% per litre of water or spray Neem oil @ 10ml in 1 litre of water against scab or canker on a non rainy day.
- In Manipur, to control the infestation of leaf minor in onion/garlic, spray Dichlorovos 36 EC @ 0.5ml/litre of water or Monocrotophos 76EC @ 1ml/litre of water to protect the crop from infestation on a non rainy day.
- In Tripura, occasional high wind may disturb the fruit setting in mango. Spray NAA @ 20 ppm to increase the fruit retention. Application of 1% Potassium Nitrate (10g/litre) at mustard size will increase the fruit set and retention of fruits on a non rainy day.
- **Animal Husbandry**
- In Tripura, vaccinate pig against swine fever. Deworming should be done in calves with consultation with veterinary practitioner.
- In Hill Zone of Assam, proper sanitary measures are to be taken against ranikhet disease. Poultry house, incubators should be properly disinfected sterilization of utensils may be carried regularly. Quarantine measures may be taken. Vaccination may be done during this period.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Weather remained dry over Gujarat and Konkan & Goa and mainly dry over rest of the region during the week.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, in transplanted *rabi* rice, maintain water level up to 5-7 cm. Considering the rise in temperature, reduce the duration between two irrigation in vegetables like Okra, Chilli, Brinjal, Cabbage also apply mulch for soil moisture conservation. The Mango fruits are egg size stage and in maturity stage in Sindhudurg district. Harvest the mature fruits in morning and evening hours at 80 to 85 % maturity. Keep the harvested fruits in shade to prevent spongy tissue disease and from heat. Apply of 80-100 litres of water per mango tree at 7 days interval as per the availability of water.
 - In Madhya Maharashtra, considering the rise in temperature, reduce the duration between two irrigation in vegetables like bitter gourd, cucumber, ridge gourd, bottle gourd and in water melon and musk melon. Also apply mulch with crop residue or plastic sheet to vegetables and orchards like pomegranate and banana. Spread 5 tonnes trash per ha in sugarcane fields for maintaining soil moisture. As prevailing day temperatures is above 36⁰C and 2-3⁰C rise is expected after 48 hours, spray Potassium Nitrate or Murate of Potash @ 500 g per 100 litres of water in orchards for decreasing the rate of evapotranspiration. Continue harvesting of matured wheat and maize. Undertake harvesting in morning hours. Provide shade to protect vegetables and young plants in orchards from sunlight.
 - In Marathwada, considering the rise in temperature, reduce the duration between two irrigation in vegetables like bitter gourd, cucumber, ridge gourd, bottle gourd and orchards like water melon and musk melon. Also apply mulch with crop residue or plastic sheet to vegetables and orchards like pomegranate and banana. Spread 5 tonnes trash per ha in sugarcane fields for maintaining soil moisture. As prevailing day temperatures is above 36⁰C and 2-3⁰C rise is expected after 48 hours, spray Potassium Nitrate or Murate of Potash @ 500 g per 100 liters of water in orchards for decreasing the rate of evapotranspiration. Continue harvesting of matured wheat and maize during morning hours. Provide shade to protect vegetables and young plants in orchards from sunlight.
 - In Vidarbha, considering rise in temperature, reduce the duration between two irrigation in leafy vegetables like fenugreek, spinach and summer vegetables like okra, bitter gourd, tinda, cowpea, cluster bean and coriander and orchards like mango. Apply mulch in vegetable crops and orchards for soil moisture conservation. Maintain water level of 5-7 cm in summer rice field in East Vidarbha. Apply 25 Kg (Urea) per hectore as 1st top dressing after 1st weeding. Continue harvesting of matured wheat and maize during morning hours. Continue sowing of green gram.
 - Due to rise in temperature in Madhya Maharashtra and Marathwada, there may be attack of shoot borer in suru sugarcane; spray Chlorantraniliprole 18.5 SC @ 4 ml or Chloropyrifos 20 EC @ 15 ml in 10 litres of water.
 - Due to rise in temperature in Madhya Maharashtra, Marathwada and Vidarbha, there may be attack of Red mite in vegetables like tomato, birnjal, cucurbitaceous crops and papaya; spray Fenpropathrin 30 EC @ 5 ml or Dicofol @

20 ml per 10 litres of water.

▪ **Gujarat:**

- In North Gujarat Zone and North West Zone of Gujarat, under increased temperature condition, apply irrigation in groundnut and pearl millet. Complete sowing of sesame, green gram, cowpea and vegetables crops. Carry out weeding and inter culturing operations in timely sown groundnut and citrus orchard. Undertake harvesting of wheat crop at physiological maturity and matured papaya fruits.
- In South Saurashtra Zone of Gujarat, complete sowing of green gram, black gram and summer sesame.
- In South Gujarat Zone, as there is an increase in temperature, apply irrigation in vegetable and fruit crops. In present dry weather condition, farmers are advised to spread plastic or fodder as mulch in vegetable fields for conserving moisture.
- In Middle Gujarat Zone of Gujarat, undertake sowing of pearl millet, cowpea, summer vegetables crop viz. cluster bean, bitter gourd, bottle gourd, small gourd etc in time. Complete sowing of green gram, bhindi and cowpea.
- In North Saurashtra Zone of Gujarat, apply irrigation in standing (vegetable, groundnut etc) crops as per requirement.
- Thrips infestation is observed above ETL in summer groundnut, sesame and vegetable crops in North Saurashtra and in groundnut in South Saurashtra Zone; spray 500 ml of 5 % neem seed extract or neem seed oil @ 50 ml with Profenofos @ 20 ml or Imidacloprid 30.5 SC @ 3 ml or LemdaCyhelothrin @10 ml/10 litre of water.
- In present weather conditions, attack of thrips has been reported in onion in North Saurashtra Zone; for control, alternative spraying of Imidacloprid 30.5 SC @ 3 ml and Profenofos @ 20 ml in 10 liters of water at 10 days interval is advised.
- Due to increase in temperature thrips attack is possible in garlic and onion in Middle Gujarat Zone of Gujarat. Spray Spinosad 48 SC 2 ml or Clorfenpyre 10 EC 7.5 ml in 10 litres of water. Keep irrigation interval short.

• **Animal Husbandry**

- In Maharashtra, protect the animals from afternoon heat. Keep good aeration in animal shed. For protection of poultry birds from heat, provide curtains from outside the poultry shed and sprinkle it with water. Apply layer of grass or gunny bags on the roof of poultry shed and sprinkle water on it. Provide fresh and cool drinking water for the poultry birds and chicks.
- In Gujarat, keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule. Make arrangement of curtains and proper ventilation in poultry house. Protect the animals from afternoon heat. For protection of poultry birds from heat, provide curtains from outside the poultry shed and sprinkle it with water. Apply layer of grass or gunny bags on the roof of poultry shed and sprinkle water on it. Provide fresh and cool drinking water for the poultry birds and chicks.

EAST INDIA [JHARKHAND, BIHAR, ODISHA, WEST BENGAL & SIKKIM, ANDAMAN & NICOBAR ISLANDS]

- **Realised Rainfall:** Rainfall occurred in Noth Sikkim district of Sikkim, Balasore district of Odisha and weather remained mainly dry/dry over rest of the region during the week.

• **Advisories:**

▪ **Odisha:**

- In North Eastern Coastal Plain Zone, due to dry weather and rise in temperature, apply irrigation in the maize and sunflower. In North Eastern Ghat Zone, continue sowing of cowpea.
- In East and South Eastern Coastal Plain Zone, likely rise in temperature may favour Leaf eating caterpillar and leaf minor in sunflower. Spray Endosulphan @ 400 ml/acre.
- In East and South Eastern Coastal Plain Zone, high difference in day and night temperature favours the infestation of Blast on rice. Spray 0.6 g Tricychlazole or 1 ml. Ediphonphos in each litre water. Withhold top dressing of Urea for five days after the spraying. Increased temperature may favour the egg laying of stemborer in rice in the main field. To attract the borer butterflies, place 4 Pheromon. Traps/acre, collect the adults and destroy them by burying them under soil or by burning. Spray 2 ml Prophenophos per litre water.
- In Eastern Ghat High Land Zone, current temperature favours thrips infestation in groundnut. Spray Dimethoate @ 400 ml or Imidachloprid @ 50 ml in 200 litres of water per acre. If Tika disease and white ant attack are noticed, spray Blitox – 50, 500 g in 200 litres of water per acre for Tika disease and spray Chloropyriphos @ 2 ml/litre of water for controlling white ant attack.
- In North Eastern Ghat Zone, mango is at fruiting initiation stage. Mango thrips infestation occurs at this stage leading to shedding of flowers and fruits. Spray imidacloprid 17.8 SL or Thiomethaxome 25% WG 0.3ml/litre of water for its control. SparyPlanofix @ 0.2ml/litre of water after one month of flowering or at fruit initiation stage. Irrigate the orchard once in a week as dry weather is forecasted during this period

▪ **West Bengal:**

- As thunderstorms accompanied with squall/ hail very likely at isolated places over Sub-Himalayan West Bengal &

Sikkim on 24th March, use hail net or hail cap for orchard crops and fruit vegetables to protect from mechanical damage. Provide support to young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places.

- In New Alluvial Zone, temperature conditions are favourable for sowing of improved variety moong. As mainly dry weather would prevail, undertake first weeding operation in rice at 21 days after transplanting.
- In Hill Zone, undertake land preparation for sowing of maize, ginger, turmeric and bhindi and planting of round chilli.
- In Coastal Saline Zone, due to high day temperature and low night temperature, blast disease may be found in rice. Apply tricyclozole @ 5-6g/10litres of water at 10 days interval. Spray 5% Bordeaux mixture for preventing chital disease in betel vine.
- In Laterite and Red soil Zone, in this weather condition, stem borer attack may be found in rice. Spray Chlorpyrifos 20% EC @ 2 ml/litre of water to control stem borer. To control shoot and fruit borer in ladies finger, Spray Neem Seed Kernel Extract solution @ 5ml/10 litres of water.
- In New Alluvial Zone, in the prevailing weather situation root-rot disease is may be prevalent in sunflower. To control apply brassicol @ 1gm per litre of water.
- In Old Alluvial Zone, in the present weather condition, there is chance of attack of Mango hopper in mango, spray Carbaryl 50 W.P @ 2.5g /litre of water at pea stage of fruit set for control. To control Cercospora leaf spot of chilli, spray Carbendazim @ 1 g per litre of water. To control Tikka disease of ground nut, spray Carbendazim @ 1gm/litre of water.
- **Andaman and Nicobar Islands:**
 - In North, Middle and South Andaman, apply bio-control agents, Trichoderma viridi or Pseudomonas fluorescense @ 2.5 kg/ha to control bacterial wilt in vegetables. Irrigate the chilli and brinjal during evening hours and do mulching to conserve soil moisture as the weather is expected to be dry.
 - In Nicobar, mulch the basins of arecanut and coconut with crop residue to conserve moisture and reduce weed infestation.
- **Bihar:**
 - In Araria, Katihar, Kishanganj, Madhepura, Purnea, Saharsa and Supaul districts in North East Alluvial Zone, continue sowing of summer maize and green gram. Maintain minimum 2-3 inch water in the boro rice fields. Complete planting of spring sugarcane as soon as possible. Undertake harvesting of matured mustard crop. Undertake land preparation for sowing of Jute crop. Complete the sowing of summer vegetables such as lady finger, pumpkin, cucumber, sponge gourd, bitter gourd at the earliest.
 - In South Bihar Alluvial Zone of Bihar, undertake land preparation for sowing of green gram and continue sowing of early crop of lady finger. Complete the transplanting of young seedlings of tomato, chilli and cole crop.
 - In Darbhanga, East Champaran, Gopalganj, Samastipur, West Champaran districts of North West Alluvial Plain Zone, undertake land preparation for sowing of green gram, black gram, summer maize, elephant foot yam and undertake harvesting of matured mustard crop. Complete the sowing of summer vegetables such as lady finger, pumpkin, cucumber, sponge gourd, bitter gourd at the earliest.
- **Jharkhand:**
 - In Jharkhand, wheat crops which is at grain filling stage and this stage is very much sensitive of moisture stress. Hence, irrigate the field as per the status of soil moisture. Complete transplanting of summer rice in main field.
 - In Central and North Eastern Plateau Zone, continue sowing of green gram and land preparation for sowing of okra. Undertake sowing of high yielding variety of maize (Birsak Makka-1, BirsakVikash Makka-2, Suwan-1(Hybrid),HQPM (Hybrid)) with assured irrigation. Continue harvesting of matured mustard.
 - In Central and North Eastern Plateau Zone, due to increase in temperature, to control fruit drop in mango at pea size, spray Quinalphos@ 2 ml & NAA 0.5 ml or Enalux and Planofix @ 1ml and 0.5 ml per liter of water.
 - In Western Plateau Zone, irrigate the fruit bearing trees at regular interval. Spray Planofix @ 5 ml per 10 litre of water to check dropping of tiny fruits.
 - In South Eastern Plateau Zone, due to likely to increase in temperature, there is possibility of occurrence of Blast disease in rice (at tillering stage), spray Carbendazim 50 WP @ 2 g per litre of water or Tricyclazole (Beam) @ 6 g per 10 litre of water.
 - In South Eastern Plateau Zone, in late sown mustard (at flowering stage) crop, because of partly cloudy weather, there is chance of more infestation of white rust, spraying of Bordeaux mixture or copper oxychloride @ 0.25 per cent or Blitox 50 @ 0.30 per cent solution is advised.
- **Animal Husbandry**
 - In Terai Zone of West Bengal, vaccination is the principal way to protect animals from Black Quarter (BQ) and Foot and Mouth Disease (FMD). Vaccinate to poultry bird against Fowl pox and Ranikhet/ ND disease.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Weather remained mainly dry/dry over the region during the week.
- **Advisories:**
 - **Madhya Pradesh:**
 - As heat wave conditions very likely at isolated places over West Madhya Pradesh on 24th & 25th March, apply light and frequent irrigation to the standing crops to cope up with the excess evaporative demand due to heat wave, mulching with straw/polythene or soil mulching to conserve soil moisture.
 - In Jhabua Hills Zone and Malwa Plateau Zone, apply irrigation and keep optimum moisture in wheat crops at milk/grain filling stage. Continue harvesting of matured timely sown wheat, mustard and gram crop.
 - In Vindhya Plateau Zone, continue harvesting of matured gram and mustard crop. Apply irrigation to late sown wheat crop. Continue sowing of urad and mung, cucurbitaceous crops, bhindi and maize. Continue nursery sowing of chilli, tomato, brinjal.
 - In Kymore Plateau and Satpura Hill Zone, in view of dry weather and rise in temperature, apply irrigation in wheat crop at dough stage. Continue harvesting of matured timely sown wheat crop. Continue harvesting of matured mustard, chickpea and potato crops. Undertake sowing of cucurbits crops. Undertake sowing of fodder crops like maize, sorghum and cowpea.
 - In Chhatarpur, Datia, Tikamgarh districts of Bundelkhand Zone, undertake sowing of moong, okra and harvesting of chickpea, pea, lentil and linseed. Present weather is favourable for direct sowing of summer vegetables like pumpkin, bitter guard, water melon, muskmelon, cucumber, ladyfinger, bottle guard. Before sowing treat the seed with bavistin @ 2.0 gram/ kg of seed.
 - In Jhabua, Alirajpur and Dhar districts of Jhabua Hills Zone, due to present weather there may be chances of attack of sucking pest in vegetable, for control spray Thiamethoxam or Acetameprid @ 0.35-0.45 gm per litre of water.
 - In Chhatarpur, Datia, Tikamgarh districts of Bundelkhand Zone, there may be attack of fruit borer in brinjal, spray Melathion 50 E.C. @ 1.0 ml per litre of water.
 - **Chhattisgarh:**
 - In North Hill Zone, as dry weather would prevail, continue harvesting of matured wheat, gram, pea, mustard and lentil crops. As increasing temperature, farmers are advised to apply irrigation in summer rice, sugarcane and summer vegetable crops as per requirement. Late sown wheat crop is at milk/ dough stage and at this stage, moisture deficiency may cause heavy reduction in yield. Hence, farmers are advised to irrigate crop during night as per the requirement. Complete sowing of summer moong, til and groundnut crop at the earliest. Continue harvesting of matured potato crop. Continue sowing of spring-planted sugarcane. Continue sowing of cucurbitaceous crop and undertake sowing of green fodder (varieties MP Chari, and Hybrid Napier (multi cut) etc.
 - In Bastar Plateau Zone, as temperature conditions are favourable, continue sowing of summer moong, til, summer vegetables like okra, sponge guard, cucumber, ridge guard watermelon, muskmelon and bitter gourd. Continue planting of summer sweet potato and harvesting of mustard.
 - In Chhattisgarh Plain Zone, as forecast of clear weather condition farmers are advised continue harvesting of matured wheat, gram oilseed and linseed crop. Continue sowing of summer green gram. Apply nitrogenous fertilizers after light irrigation in one month old transplanted vegetables. Continue sowing of summer fodder and hybrid Napier after preparation of field. Give irrigation to vegetable and summer paddy crop as per requirement.
 - In Chhattisgarh Plain Zone, present weather is conducive for attack of red pumpkin beetle in cucurbitaceous vegetables, for control spray Savin @ 2 g per litre of water at root zone in morning time.
 - In North Hill Zone and Chhattisgarh Plain Zone, in summer paddy, farmers are advised to fix pheromone traps and light traps in the fields for the control of stem borer. Also farmers are advised to spray Saaf fungicide @ 2 g per liter of water to control of purple blotch in onion.
- **Horticulture**
 - In Jhabua, Alirajpur and Dhar districts of Jhabua Hills Zone, of Madhya Pradesh, due to present weather there may be chances of attack of gomosis & anthracnose disease in citrus, for control spray Blitox or Phytolon @ 2.5gm per litre of water.
 - In North Hill Zone of Chhattisgarh, presently mango crop is at flowering/fruit setting stage, at this stage infestation of mango hopper is commonly observed. Therefore farmers are advised to keep the mango orchards clean and if required then spray recommended insecticides like Methyl Demeton @ 2 ml/litre water.
- **Animal Husbandry**
 - In West Madhya Pradesh, Haryana and west Rajasthan, in view of the heat wave forecast, grazing /feeding of cattle/goats may be done during morning/evening hours. Keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule. Make arrangement of curtains and proper ventilation in poultry house.
 - In Bastar Plateau Zone of Chhattisgarh, to protect livestock from diseases like Haemorrhagic Septicaemia (H.S.), Black quarter (B.Q.), Anthrax, Theileriosis etc. consult the veterinary Doctor and vaccinate. Undertake deworming

in cattle with medicines like Piparagen, Benminth & Panaraquar.

NORTH INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]

- **Realised Rainfall:** Rainfall occurred in Kupwara district of Jammu & Kashmir, Kullu district of Himachal Pradesh, weather remained mainly dry/dry over remaining parts of the region during the week.
- **Advisories:**
 - As heat wave conditions very likely at isolated places over Haryana and west Rajasthan on 26th & 27th March, apply light and frequent irrigation to the standing crops to cope up with the excess evaporative demand due to heat wave, mulching with straw/polythene or soil mulching to conserve soil moisture.
 - **Jammu & Kashmir:**
 - In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, continue transplanting of tomato/brinjal/chilli, continue direct sowing of cucurbits like cucumber, bottle gourd, bitter melon, pumpkin and okra in clear weather. Continue sowing of lady's finger, French bean, cluster bean and summer radish and sowing of summer fodder crop i.e jowar crop with varieties like Ujjain, Swarna-413, M.P. chari & Pioneer jowar. Continue harvesting of matured wheat, mustard and gram after current spells of rain in clear weather.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, continue nursery preparation of summer vegetables. Continue planting of cucurbits in main field.
 - In Valley Temperate Zone of Jammu and Kashmir, continue sowing of leafy vegetables in poly house as well as in raised beds in clear weather. Continue planting of potato tubers.
 - In Cold Arid Zone of Leh, continue harvesting of leafy vegetables (Chinese cabbage, Haens saag, Palak, mongol and Lettuce) in protected structures. The current night temperature is below -5^oC Therefore the trenches and poly houses should be covered with blankets during the night.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, weather is favourable for infestation of yellow rust on normal sown wheat, blight on late sown wheat, onion and Aphid on mustard and cabbage, cauliflower, Knol Khol. Monitor the crops and take appropriate plant protection measures to control above pest/disease.
 - **Uttarakhand:**
 - In Udham Singh Nagar district of Bhabar and Tarai Zone, continue sowing of moong and sowing of fodder crops like chari, Maize, bajara, makchari, lobia and jowar.. Continue harvesting of matured pea crop.
 - In Nainital district of Bhabar and Tarai Zone, if seedlings of tomato, capsicum and brinjal are ready, undertake transplanting in the main fields in the valley region. In valley region, continue planting of Kufrijyoti variety of potato. Continue harvesting of mustard crop in clear weather.
 - In TehriGarhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, continue transplanting of chilli, tomato and brinjal in poly houses. Continue sowing of French Bean and okra in High to Mid altitude areas. Undertake land preparation in high altitude areas for sowing of French bean, lobia, ginger, turmeric, rajama and potato. Prepare seedlings of early cucurbitaceous crops in small polythene bags in poly houses. Continue harvesting leafy vegetables like fenugreek, spinach etc.
 - In Udham Singh Nagar district of Bhabar and Tarai Zone, control the stem and fruit borer in brinjal by spraying of Emamectin Benzoate 5SG @ 200g/ha or Cypermethrin 25EC @ 200ml/ha or Lambda Cyhalothrin 5CS @ 300ml/ha and harvesting of fruit should be done after 5 days of last spraying of chemicals.
 - **Himachal Pradesh:**
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, as mainly dry weather would prevail, undertake harvesting of matured mustard crop. Complete sowing of sunflower in low and mid-hill areas. In lower regions, undertake sowing of green gram and black gram, cucurbits crops, early okra, spinach, coriander, fenugreek. Continue sowing of French bean, cluster bean, summer radish as present temperature is suitable for germination of seeds. Continue transplanting of young seedlings of tomato, chilli and cole crop. In mid hill region continue raising of cucurbits viz. cucumber, bitter melon, bottle gourd and summer squash in polytubes inside polyhouse.
 - In Mid Hills Sub-Humid Zone of Himachal Pradesh, in Solan, Shimla, Bilaspur, Sirmour districts, undertake direct sowing of summer vegetables, French bean, pumpkin, bitter melon and kheera.
 - In Mild Hills Sub-Humid Zone of Himachal Pradesh, in Kullu and Mandi districts, present weather is conducive for attack of collar rot in apple and pear, for control remove the soil around the collar region and expose the affected portion to sun. Remove the affected bark and apply Chaubatia paint or Copper Oxchloride paint. Drench 30cm radius around tree trunk with Bavistin @ 30gms per 15 litres of water or Ridomil @ 75gms per 15 litres of water or Dithane M-45 @ 90 to 100 gms per 15 litres of water.
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of thrips in early sown onion crop, for control spray Imidacloprid @ 0.5 ml per litre

of water with sticky material (Tipol 1.0 gram /litre) in clear weather.

▪ **Punjab, Haryana and Delhi:**

- In Western Plain Zone of Punjab, weather is suitable for sowing of summer moong (varieties SML-668 and SML 832) and summer mash (varieties Mash -1008 or Mash-218). Undertake transplanting of CH-1, CH-3, Punjab Sindhuri, Punjab Tej, Punjab Guchhedar and Punjab Surakh varieties of Chilli in Western Plain, Central and Western Zone of Punjab. In Western Plain Zone of Punjab harvest the early sown mature mustard.
- In Western Zone of Punjab, prepare the field for sowing of Okra. Varieties recommended for sowing are Punjab Padmini, Punjab-7 and Punjab-8.
- In Central Plain Zone of Punjab, undertake sowing of sugarcane with recommended varieties Co-118, CoJ-85, CoJ-64 and CoPb-92 (early maturity group), Co-238, CoPB-91, CoS-8436, CoJ-88, CoPb-93, CoPb-94 and CoJ-89 for mid late maturity.
- In Western Zone of Haryana, undertake harvesting of matured early sown mustard crop. In Eastern Zone of Haryana, undertake planting of spring season sugarcane.
- In New Delhi, continue sowing of ladies finger- A-4, Parbani Kranti and Arkaanamika cultivars. Seed rates should be 10-15 kilogram per acre. Undertake sowing of French bean, cluster bean, summer radish as present temperature is suitable for germination of seeds. Undertake transplanting of young seedlings of brinjal and chilli. Complete sowing of green gram and black gram. Variety: - Green gram – PusaVisal, Pusa Baisakhi, PDM-11, SML-32 and Black gram – Pant Urd 19, Pant Urd 30, Pant Urd 35, PDU-1.
- In New Delhi, in present weather condition, constant monitoring of the wheat crop against rust disease is advised. If symptoms of black, brown or yellow rust appears, spray the crops with Dithane M-45 @ 2.5 g per litre of water.
- Due to congenial weather, army worm attack may increase in late sown wheat in Undulating Plain Zone of Punjab, spray Quinalphos @ 400ml/acre to control. Due to favourable weather conditions, blight disease may appear in gram, monitor the crop and spray Indofil M45@ 360g/acre in 100 litres of water. Due to humid weather, downey mildew disease may appear in cucurbit crops, spray Indofil M45 @ 300-600g/acre depending on the growth stage. Humid weather may also favour attack of aphid in peach and pear, spray 200ml of Imidacloprid 17.8 SL or 160g of Thiamethoxam 25WG in case of severe attack.
- Due to dry and variable weather condition monitor constantly wheat crop against attack of yellow rust in Western Zone of Haryana, if symptom observed spray 200 ml Tilt 25% EC (Propiconazole 25% EC) in 200 liter water per acre.

▪ **Uttar Pradesh:**

- In Central Plain Zone of Uttar Pradesh, as dry weather would prevail, complete harvesting of sugarcane and continue harvesting of matured barley and mustard crop. Apply light irrigation to wheat crop at flowering/milking stage as per requirement. Continue sowing of bhindi, mung and urad. Continue planting of spring sugarcane and sowing of multi harvesting fodder crop like MP-chari, Pusa Chari 23 and pioneer. Continue thinning operation in maize crop after 10 to 15 days of sowing. Apply irrigation to bhindi and cucurbitaceous vegetables, okra, lobia, rajma as per requirement. Apply irrigation to timely sown urad crop after 30 to 35 days of sowing as per requirement.
- In Eastern plain Zone of Uttar Pradesh, as dry weather is expected, apply light irrigation in wheat crop at milk/dough stage in calm wind. Undertake transplanting of *rabi* onion. Apply irrigation in onion, garlic crop. Undertake digging of matured potato.
- In Bundelkhand Zone of Uttar Pradesh, continue harvesting of matured mustard, linseed, gram, pea crops. Apply light irrigation to wheat and jou crop at milking stage as per requirement. Continue sowing of urad and mung. Continue sowing of bhindi, Cucurbitaceous vegetables and transplanting of tomato, chilli and brinjal.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of fruit borer in Cucurbitaceous crop, for control spray Neem oil @ 1.5 to 2.0 ml per litre of water, 3 to 4 times at the 8 to 10 days of intervals.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of fruit borer in brinjal and tomato crop, for control, spray Carbaryl @ 2 gm per litre of water after current spells of rain.
- In Bundelkhand Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of termite in wheat crop, for control, apply Chlorpyrifos @ 3litres/ha along with irrigation.

▪ **Rajasthan:**

- In Sub Humid Southern Plain and Aravali Hill Zone, in Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts, late sown wheat is at milk/dough stage and in view of increase in day temperature, apply irrigation to wheat crop to maintain optimum temperature. Continue sowing of summer mung. Before sowing of summer mung apply irrigation in the field so that sufficient moisture available for proper seed germination, seed rate are 15-20 kg/ha.
- In Southeastern Humid Plain Zone, apply irrigation to late and timely sown wheat crop, linseed and coriander as per requirement.

- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, Continue harvesting of matured mustard and wheat crop.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, complete harvesting of matured mustard crop and undertake harvesting of matured wheat and barley crop.
- In Jaisalmer and Bikaner districts of Arid Western Plain Zone, in late sown wheat, provide the 5th irrigation at 90-95 days after sowing and continue harvesting of matured mustard, gram and other rabi crops.
- In Barmer, Churu, Jalore, Jodhpur, Pali districts of Arid Western Plain Zone, continue harvesting of matured *Rabi* crop. Apply 30 kg nitrogen per hectare to Cucurbitaceous Crop after 25 to 30 days of sowing. Undertake transplanting of tomato, brinjal, chilli. Undertake sowing of jwar and bajra as fodder crops.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, prevailing weather condition is congenial for attack of termite in jowar, wheat and gram crops, for control, spray Chlorpyrifos 20 EC @ 1 litre per bhiga along with irrigation water.
- In Southeastern Humid Plain Zone, in Jhalawar, Kota, Bundi, Baran districts, prevailing weather condition is congenial for attack of green grubs in gram crop, for control, broadcast Quinalphos 1.5% @ 25 kg per hectare.
- **Horticulture**
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of mango hopper in Mango trees, for control spray Monocrotophos 40 EC @ 1.5 ml or Chlorpyrifos 20 % EC @ 2 ml per litre of water.
- In Uttar Pradesh, apply irrigaeiton to Mango, Guava, Citrus, Ber and papaya orchards as per requirement.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of wilt in guava, for control use Bawistin @ 20 to 30g in 10 to 15 litres of water near the root and also apply Zinc Sulphate @ 15g and Metasystak @ 1g
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts Himachal Pradesh, present weather is conducive for attack of peach leaf curl in peach trees for control spray Metasystox @ 1ml per litre + Blitox @ 3g per litre of water.
- In Bhabar and Tarai Zone of Uttarakhand, in high hilly regions where snow is melting, first half dose of Nitrogen fertilizer should be applied in the basins of temperate fruit trees. For pollination, at the time of flowering in the orchard of different varieties of temperate fruits, keep the boxes of bee @ 2-3/ha.
- **Floriculture**
- In Himachal Pradesh, present weather is conducive for the attack of inflorescence rotting disease in marigold crop for control spray Bavistin @ 1 g per litre of water or Indofil-M 45 @ 2 ml per litre of water and undertake intercultural operations and weeding in flower beds. The flowers affected with aphids, for control spray Malathion @ 0.05%.
- In Mid Hills Sub-Humid Zone of Himachal Pradesh, in Solan, Shimla, Bilaspur, Sirmaur districts, complete the planting of gladiolus. Undertake transplanting of marigold seedling in main fields.
- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone of Rajasthan, undertake nursery raising of summer marigold using 700-800 g/ha seed in 15 cm raised beds at 6 cm spacing in rows at 2 cm depth.
- In Valley Temperate Zone of Jammu and Kashmir, provide drainage channels in flowerbeds to avoid water stagnation after snow melting.
- **Apiculture**
- In Himachal Pradesh, the winter packing may be taken away as the temperature is rising to 24°C. The weak apiary should be given artificial food, also insert empty frame /combs for egg laying to the queen as the population starts builds up. Dust sulphur on sealed brood in the colony and not on larvae to control mites attack on honeybees.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, shift the bee hives near to the flowering plants.
- In Bhabar and Tarai Zone of Uttarakhand, install honey boxes @3-9/ha in temperate fruit orchard at flowering stage.
- **Animal Husbandry**
- In Haryana and west Rajasthan, in view of the heat wave forecast, grazing /feeding of cattle/goats may be done during morning/ evening hours. Keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule. Make arrangement of curtains and proper ventilation in poultry house.
- In Himachal Pradesh, monitor the animals for FMD and advised Vaccination. Ecto-parasite attack is expected in this weather for control sparyButox @ 2ml per litre in cowshed and give mixture of hay & green fodder.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, give special care to young calves as they are more sensitive to pneumonia. Use dry gunny bags as bedding material for protection against low night temperatures. Provide dry bedding during night.
- **Poultry**
- In Himachal Pradesh, new lot of layers chicks follow recommended schedule of vaccination for IBD and Ranikhet

disease because weather is conducive for the spread of these disease. Increase 10% feeding and add mineral in the diet.

- In Rajouri, Ramban, Poonch and Udhampur districts of Jammu & Kashmir, in poultry shed, light around 13-14 hours a day should be maintained in the layers houses with the help of electric bulbs for better egg production.
- In Bhabar and Tarai Zone of Uttarakhand to save the buffalo calf from patera disease, 10-15Cc Neem oil should be given to the calf immediately after 10 days of his birth. Again after 10 days, 10-15 CC Neem oil should be given. Chenopodium album oil can also be given as a fodder to animals to save the calf/animals from patera disease.
- **Fishery**
- In Himachal Pradesh, fill tanks with water and then add stocking. Stocking @ 150 fingerlings per 100 sq. meter pond area.
- In Jammu & Kashmir, add supplementary feed (GNOC/mustard oilcake and Rice/Wheat bran) @ 3% of total body weight of fish biomass.

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