राष्ट्रीय कृषि मौसम परामर्श सेवा बुलेटिन

National Agromet Advisory Service Bulletin



शुक्रवार, दि. 27 नवंबर 2026

(अवधि: 27 नवंबर 2026 से 1 दिसंबर 2026)

Friday, 27th December 2026

(For the period 27th November 2026 to 1st December 2026)



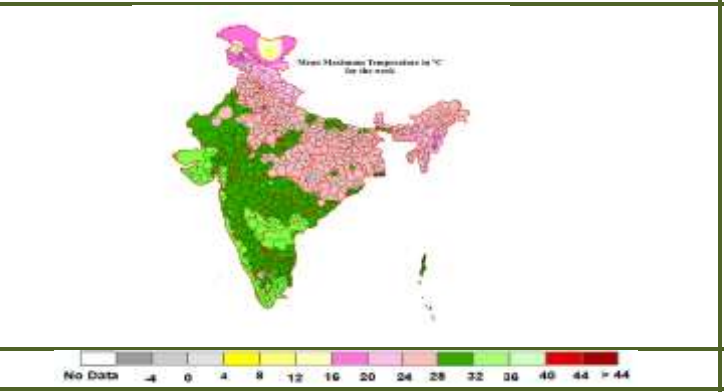
कृषि मौसम विज्ञान प्रभाग,
भारत मौसम विज्ञान विभाग, पुणे
द्वारा जारी

Issued by

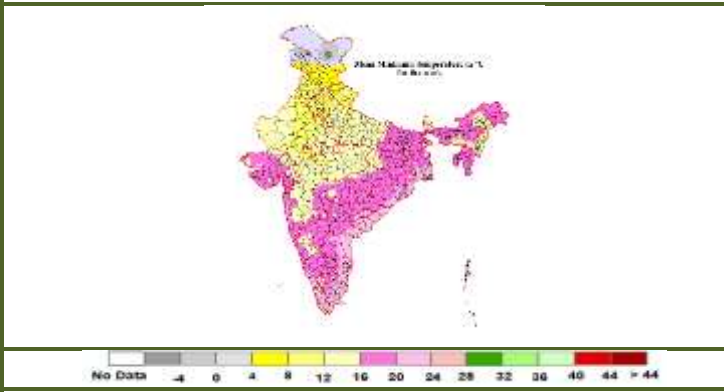
Agricultural Meteorology Division,
India Meteorological Department, Pune.

Spatial distribution of weather parameters for the week 19.11.2026 to 25.11.2026

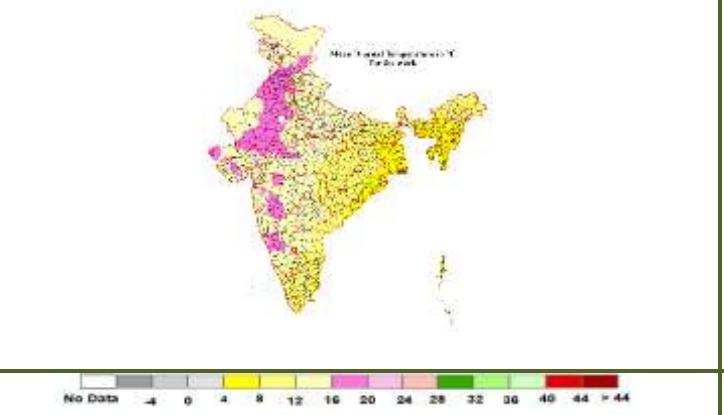
Mean Maximum Temperature (ºC) for the week 19.11.2026 to 25.11.2026



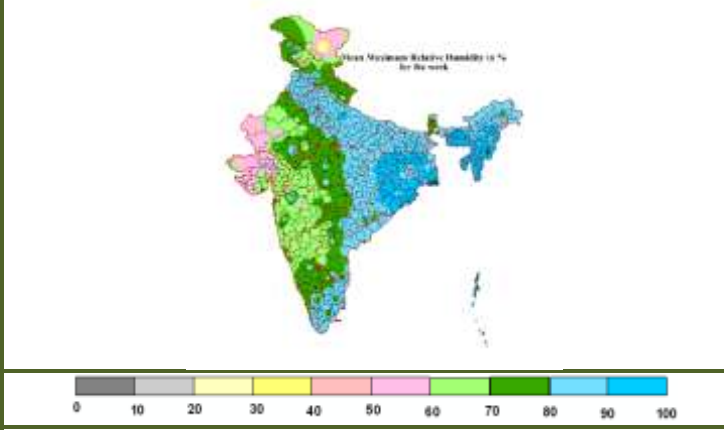
Mean Minimum Temperature (ºC) for the week 19.11.2026 to 25.11.2026



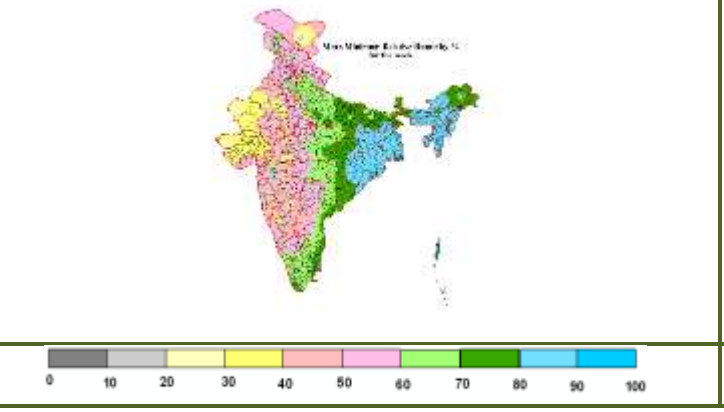
Mean Diurnal Temperature Variation (ºC) for the week 19.11.2026 to 25.11.2026



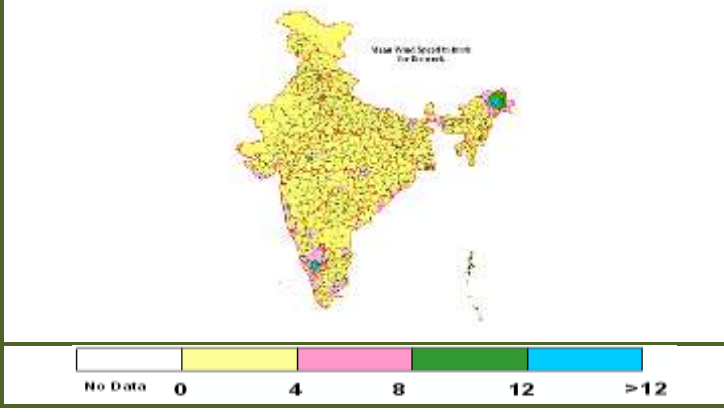
Mean Maximum Relative Humidity (%) for the week 19.11.2026 to 25.11.2026



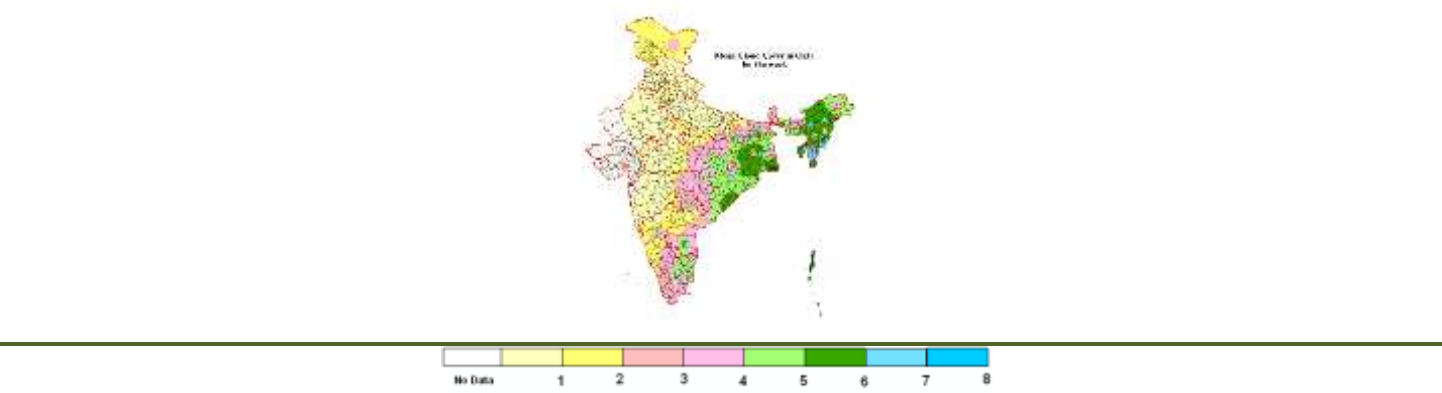
Mean Minimum Relative Humidity (%) for the week 19.11.2026 to 25.11.2026

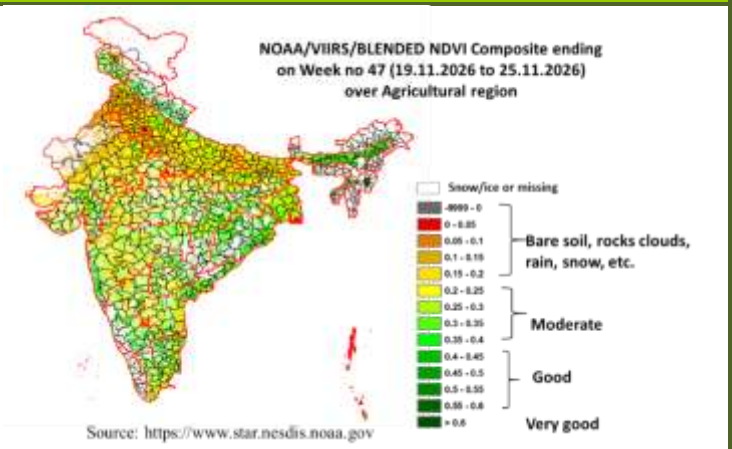
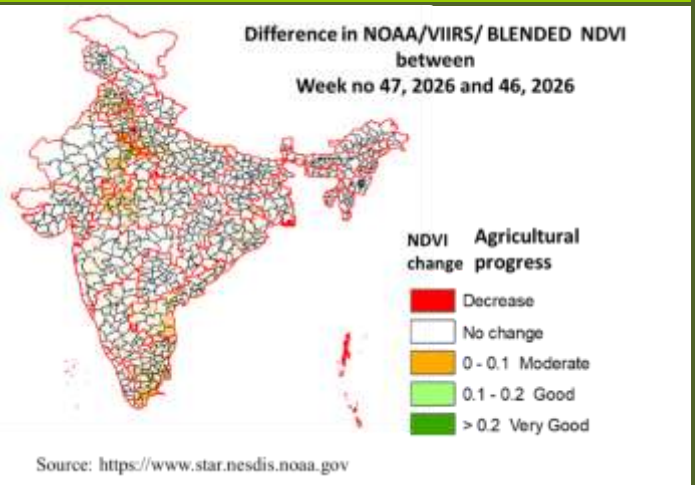


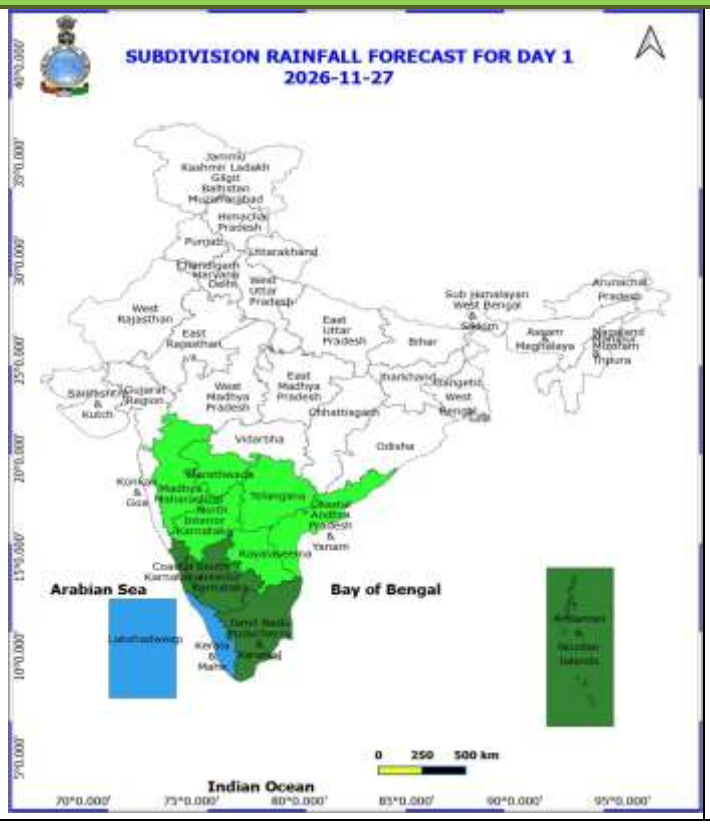
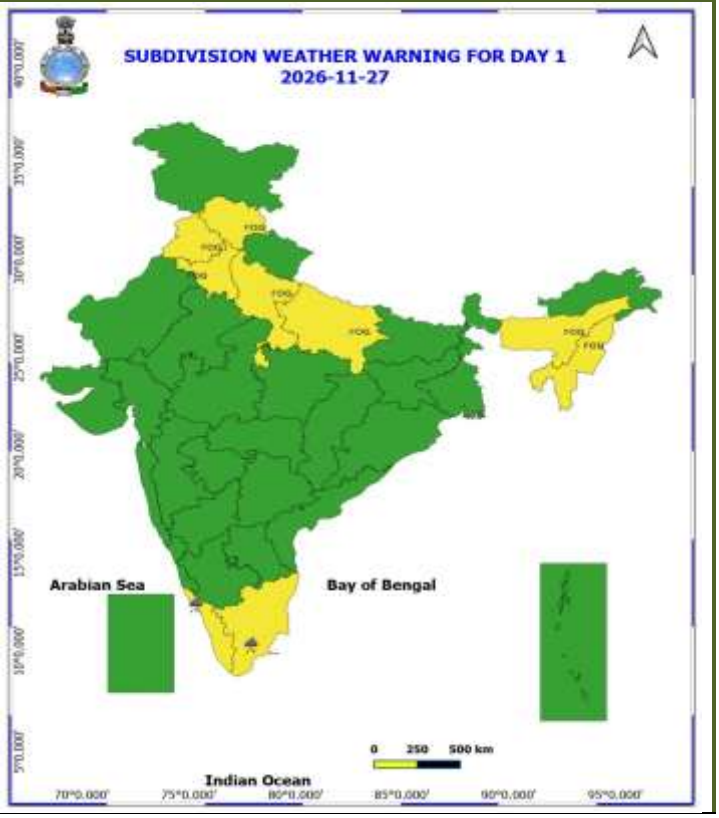
Mean Wind Speed in Km/hr for the week 19.11.2026 to 25.11.2026

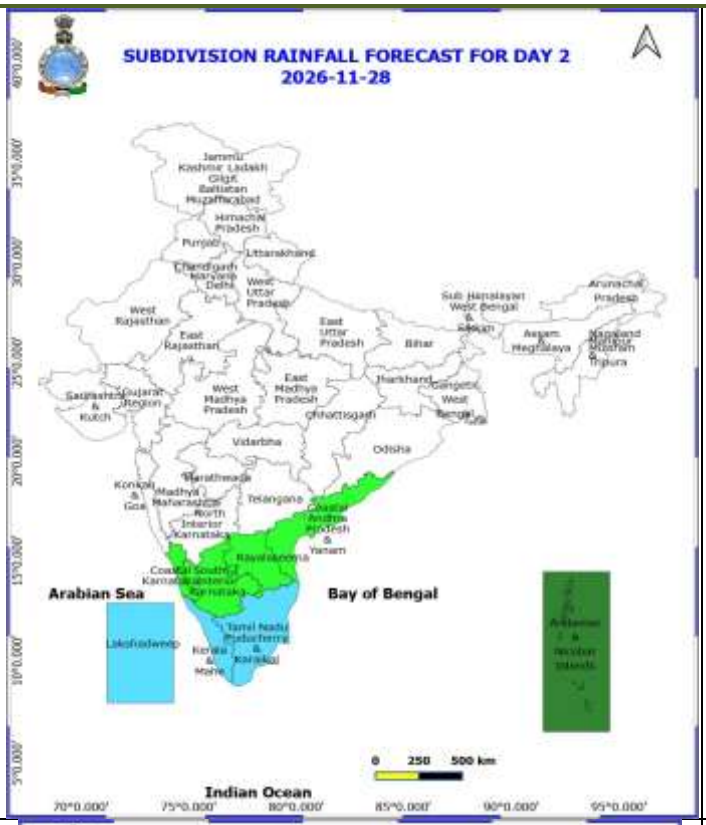


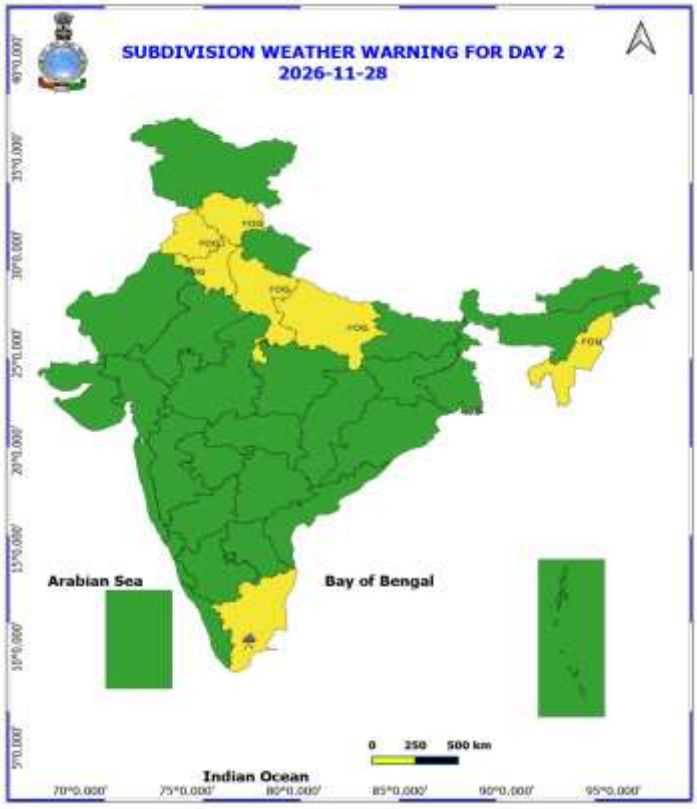
Mean Cloud Cover in okta for the week 19.11.2026 to 25.11.2026

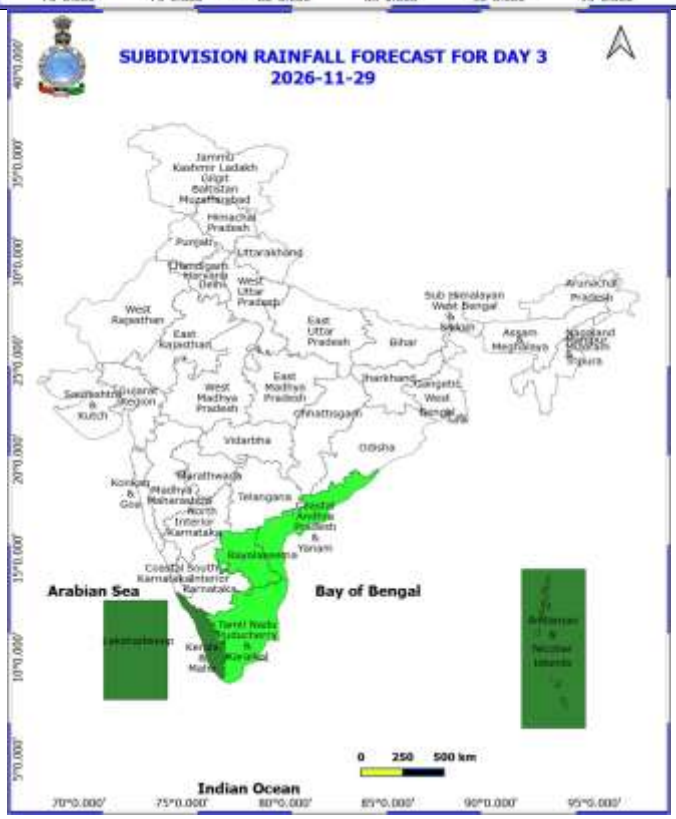


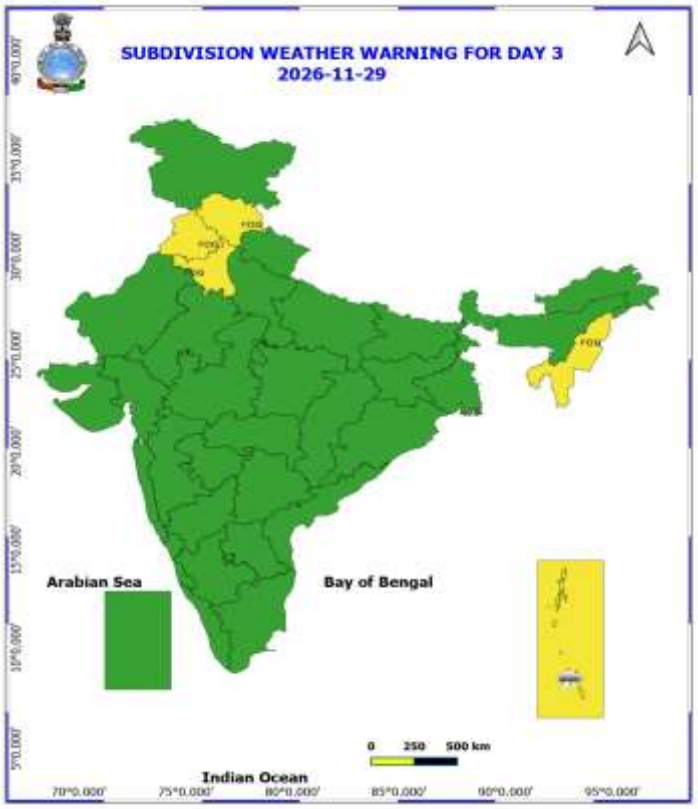
NOAA/VIIRS/BLENDED NDVI composite for the week number 47 (19.11.2026 to 25.11.2026) over Agricultural regions of India	Difference in NOAA/VIIRS/BLENDED NDVI between week number 47, 2026 and 46, 2026
	
Agricultural vigour was good at many places of Uttarakhand; at a few places of North eastern states, Odisha, Karnataka & south Konkan and at isolated places of Himachal Pradesh, Sub Himalayan West Bengal, east Madhya pradesh, Chattisgarh, Telangana, North Coastal Andhra Pradesh 7 interior districts of Tamilnadu	Difference in agricultural vigour was moderate in many places of Punjab, Haryana, East Rajathan, West Madhya Pradesh, Taminnadu and Coastal Andhra Pradesh

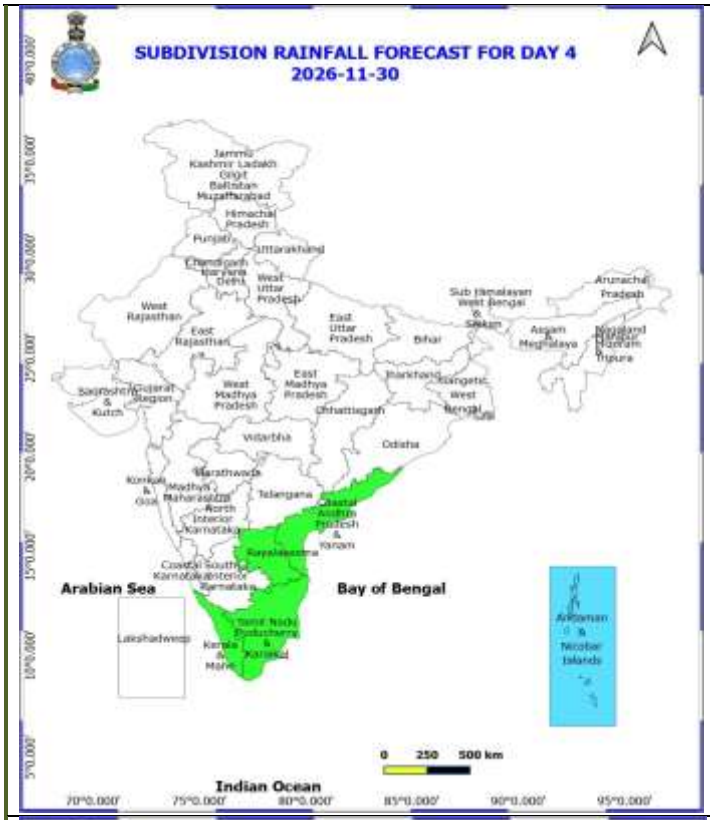
Sub-Divisionwise Rainfall Forecast and weather warning for next 5 days	
	

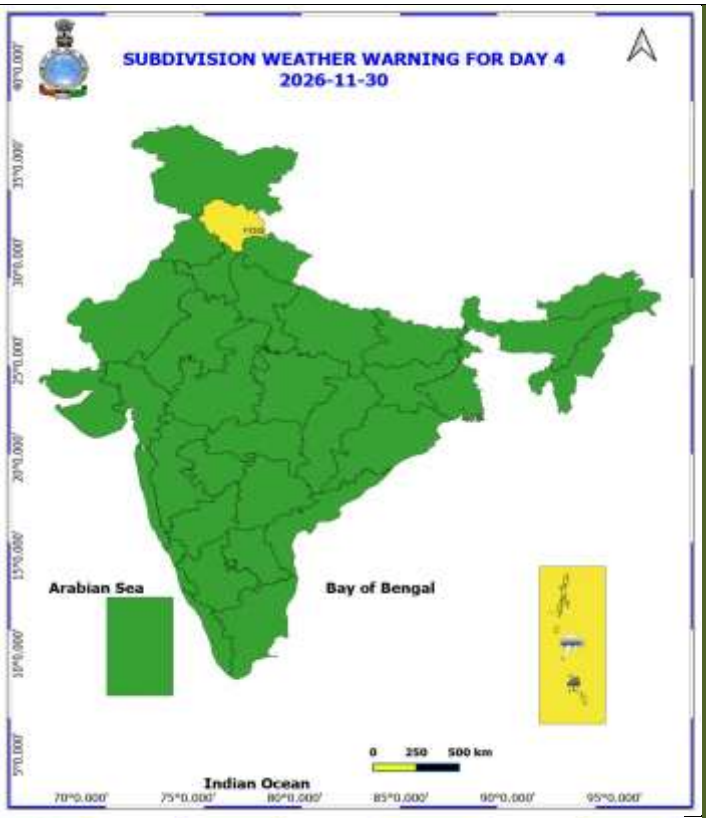

SUBDIVISION RAINFALL FORECAST FOR DAY 2
2026-11-28
Arabian Sea
Bay of Bengal
Indian Ocean
0 250 500 km

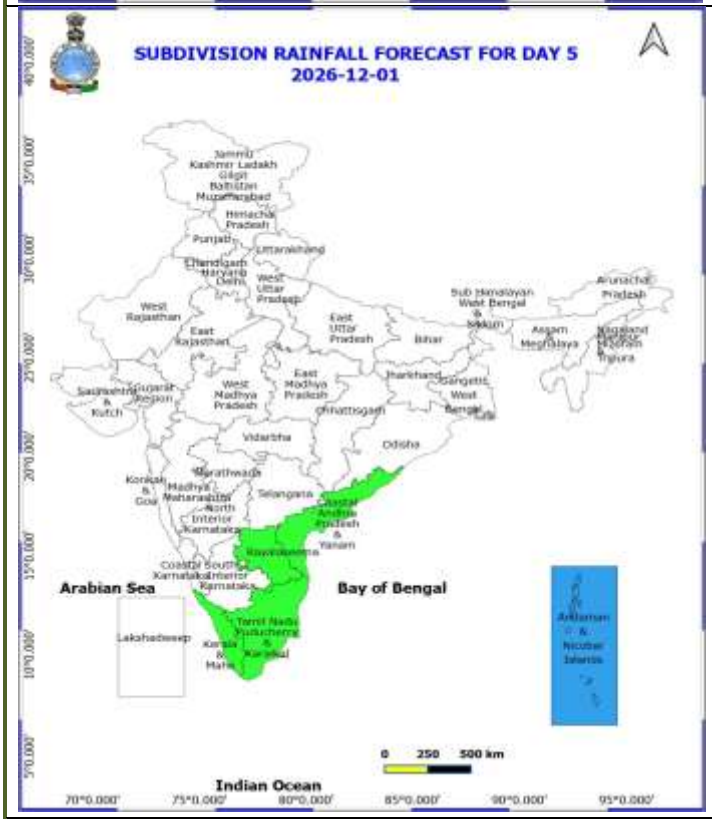

SUBDIVISION WEATHER WARNING FOR DAY 2
2026-11-28
Arabian Sea
Bay of Bengal
Indian Ocean
0 250 500 km

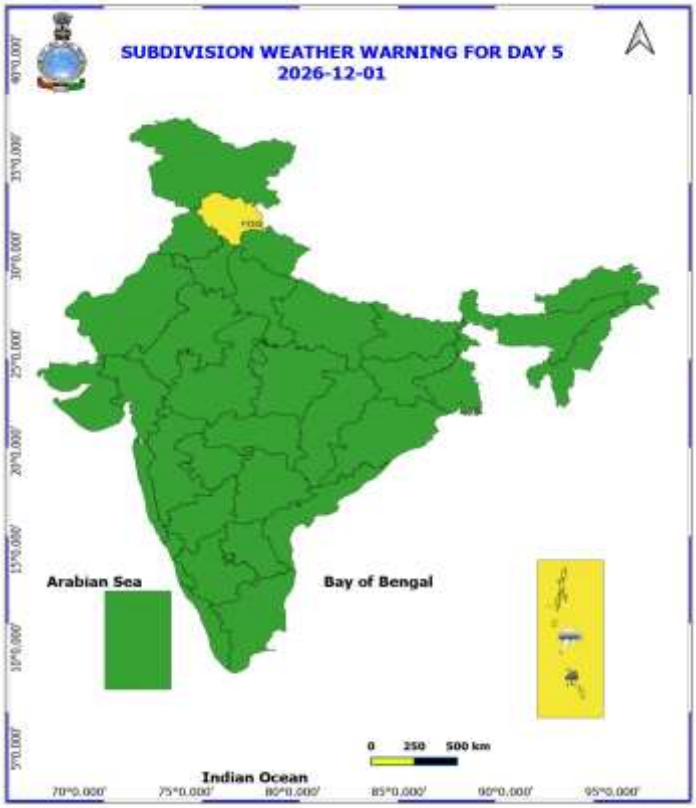

SUBDIVISION RAINFALL FORECAST FOR DAY 3
2026-11-29
Arabian Sea
Bay of Bengal
Indian Ocean
0 250 500 km


SUBDIVISION WEATHER WARNING FOR DAY 3
2026-11-29
Arabian Sea
Bay of Bengal
Indian Ocean
0 250 500 km









Legend	Category	% Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

No heavy Rainfall	Heavy Rainfall / Snowfall
Heavy	
Very heavy	
Exceptionally Heavy	
No TS	Thunderstorm / Squall / Hailstorm
Light TS	
Moderate TS	
Severe TS / Very Severe TS / Hailstorm	

Weather Warning during next 5 days

27th November 2026 (Day 1)

- **Heavy Rainfall** very likely at isolated places over Kerala & Mahe and Tamil Nadu Puducherry & Karaikal.
- **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Kerala & Mahe, Lakshadweep and Tamil Nadu Puducherry & Karaikal.
- **Thunderstorm accompanied with Lightning** very likely at isolated places over Karnataka.
- **Dense Fog** very likely at isolated places over Assam & Meghalaya, Haryana, Chandigarh & Delhi, Himachal Pradesh, Nagaland, Manipur, Mizoram and Tripura, Punjab and Uttar Pradesh.

28th November 2026 (Day 2)

- **Heavy Rainfall** very likely at isolated places over Tamil Nadu Puducherry & Karaikal.
- **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Kerala & Mahe, Lakshadweep and Tamil Nadu Puducherry & Karaikal.
- **Dense Fog** very likely at isolated places over Haryana, Chandigarh & Delhi, Himachal Pradesh, Nagaland, Manipur, Mizoram and Tripura, Punjab and Uttar Pradesh.

29th November 2026 (Day 3)

- **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** very likely at isolated places over Andaman & Nicobar Islands.
- **Dense Fog** very likely at isolated places over Haryana, Chandigarh & Delhi, Himachal Pradesh, Nagaland, Manipur, Mizoram and Tripura and Punjab.
- **No Fishermen Warning**

30th November 2026 (Day 4)

- **Heavy Rainfall** likely at isolated places over Andaman & Nicobar Islands.
- **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Andaman & Nicobar Islands.
- **Dense Fog** likely at isolated places over Himachal Pradesh.

1st December 2026 (Day 5)

- **Heavy Rainfall** likely at isolated places over Andaman & Nicobar Islands.
- **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** likely at isolated places over Andaman & Nicobar Islands.
- **Dense Fog** likely at isolated places over Himachal Pradesh.

Warning for Fishermen

- As **Squally weather with wind speed 35 kmph to 45 kmph gusting to 55 kmph** is likely to prevail along and off Kerala and over Lakshadweep Area during next 24 hours; **Squally weather with wind speed 40 kmph to 50 kmph gusting to 60 kmph** is likely to prevail over Andaman Sea on 30th November and 1st December, 2026, **fishermen are advised not to venture into these areas**.

Salient Advisories

- As rain/thundershowers at many/most places likely over Kerala & Mahe, Lakshadweep and Tamil Nadu Puducherry & Karaikal during next 48 hours, over Andaman & Nicobar Islands on 30th November & 1st December and Heavy Rainfall very likely at isolated places over Kerala & Mahe during next 24 hours, over Tamil Nadu Puducherry & Karaikal during next 48 hours, over Andaman & Nicobar Islands on 30th November & 1st, December, 2026, postpone irrigation, intercultural operations and application of plant protection measures & fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid waterlogging.
- As Thunderstorm accompanied with lightning & gusty winds (40-50kmph) very likely at isolated places over Andaman & Nicobar Islands on 30th November & 1st December; Thunderstorm accompanied with lightning & gusty winds (30-40kmph) very likely at isolated places over Kerala & Mahe, Lakshadweep and Tamil Nadu Puducherry & Karaikal during next 48 hours, provide mechanical support to banana & papaya plantations and staking to young plants and vegetables. Undertake propping in sugarcane.

- Sowing/Transplanting/Harvesting
  - sowing of wheat, gram, lentil, field pea, oats, mustard; transplanting of onion in Jammu & Kashmir
  - sowing of wheat; transplanting of onion in Himachal Pradesh
  - harvesting of red gram, vegetable pea, ginger; transplanting of onion in Uttarakhand
  - harvesting of early-maturing varieties of sugarcane; sowing of wheat, *raya*, African *sarson*, *gobhi* sarson, lentil, chickpea, China *sarso*; nursery sowing of onion in Punjab
  - harvesting of groundnut; sowing of chickpea, barley, wheat, rabi maize, lentil in Rajasthan
  - picking of mature cotton; sowing of wheat, garlic, chickpea; nursery sowing of onion in Madhya Pradesh
  - harvesting of matured paddy; sowing of wheat, gram & mustard in Chhattisgarh
  - sowing of wheat, mustard, barley, linseed, chickpea, field pea, green pea, garlic, oat; nursery sowing of rabi onion in Uttar Pradesh
  - sowing of wheat, rabi maize, lentil in Bihar
  - sowing of wheat in Jharkhand
  - harvesting of matured paddy, maize, millets, niger & groundnut; picking of cotton; sowing of mustard, groundnut, toria, sunflower, black gram, pea, wheat, green gram, cowpea, lentil, linseed; transplanting of onion in Odisha
  - harvesting of matured rice & finger millet; picking of kiwi & chilli; sowing of maize, mustard & wheat; planting of potato in West Bengal
  - harvesting of mature *Jhum* rice, mature finger millets; sowing of field pea, mustard in Arunachal Pradesh
  - harvesting of matured *Sali* rice, green gram, black gram, sesame; sowing of mustard, rabi maize, rapeseed, field pea, black gram, wheat, toria, pea, lentil, linseed; nursery sowing of *Boro* rice in Assam
  - harvesting of rice, ginger, turmeric; sowing of garden pea in Meghalaya
  - harvesting of lowland rice, soybean, ginger; sowing of mustard, rajma, rapeseed; transplanting of onion in Nagaland.
  - sowing of lentil, rabi maize, rapeseed, mustard; transplanting of onion in Manipur
  - harvesting of matured *kharif* rice, pea, mustard in Mizoram
  - nursery sowing of *Boro* rice in Tripura
  - picking of cotton; sowing of chickpea, wheat, cumin, mustard, potato, garlic, green gram; nursery sowing of onion in Gujarat
  - harvesting of matured rice & finger millet; picking of cotton and sowing of irrigated wheat, mustard, linseed & gram; planting of sugarcane in Maharashtra
  - harvesting of matured paddy, ginger, turmeric, sugarcane, cowpea, green gram, black gram; picking of cotton; sowing of green gram, black gram, chickpea, wheat, rabi maize; nursery sowing of onion in

Karnataka

- harvesting of rice; sowing of ragi, groundnut, horse gram; nursery sowing of Rabi rice in Andhra Pradesh
- harvesting of matured rice; sowing of groundnut, cowpea, black gram, green gram, maize, sorghum, sunflower in Telangana
- transplanting of *Mundakan* paddy in Keralam

➢ Pest and Disease

- In Assam, spray Thiamethoxam 25WG (@ 3g per 10 litres of water to control saw fly infestation in rapeseed & mustard.
- In Andhra Pradesh, spray Chlorantraniliprole @ 0.3ml/litre of water to control attack of leaf folder and stem borer in early sown paddy at milk stage.
- In Karnataka, spray Emamectin benzoate 5% @ 0.5g per litre of water to manage incidence of fall army worm in jowar.
- In Rajasthan, dust Methyl Parathion 2% or Carbary l 5% WP @ 20-25 kg/ha to control mustard sawfly in mustard.

Detailed Agromet Advisories

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

Realised Rainfall: Significant rainfall occurred over SPSR Nellore, Srikakulam & Tirupati districts of Andhra Pradesh; over Chengalpattu, Chennai, Cuddalore, Karaikal, Mayiladuthurai, Puducherry, Tiruvallur & Vellore districts of Tamil Nadu. Weather remained mainly dry over rest of the region.

Advisories:

➢ As **rain/thundershowers at many/most places** likely over Kerala & Mahe, Lakshadweep and Tamil Nadu Puducherry & Karaikal during next 48 hours and **Heavy Rainfall** very likely at isolated places over Kerala & Mahe during next 24 hours, over Tamil Nadu Puducherry & Karaikal during next 48 hours, postpone irrigation, intercultural operations and application of plant protection measures & fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid waterlogging.

➢ As **Thunderstorm accompanied with lightning & gusty winds (30-40kmph)** very likely at isolated places over Kerala & Mahe, Lakshadweep and Tamil Nadu Puducherry & Karaikal during next 48 hours, provide mechanical support to banana & papaya plantations and staking to young plants and vegetables. Undertake propping in sugarcane.

Tamil Nadu

➢ In North Eastern Zone, due to continuous rainfall, leaf folder and stem borer infestations have been observed in paddy. To manage spray Carbosulfan @ 400 ml/acre or Cartap hydrochloride @ 600g/acre during the morning or evening hours during clear weather.

➢ In North Western Zone, provide adequate support to banana plants aged more than five months using bamboo poles. Provide propping to sugarcane to prevent lodging.

➢ In Western Zone, due to continuous cloudy and humid weather, vegetative growth has been observed in mango. To induce flowering, apply paclobutrazol @ 10g a.i. or spray 1% potassium nitrate (KNO_3).

➢ In Cauvery Delta Zone, provide proper drainage facilities in rice and banana fields and remove excess water to prevent water stagnation.

➢ In High Rainfall Zone, harvest pepper by hand-picking the entire spikes when a few berries in each spike begin to turn red. One-year-old cinnamon seedlings may be transplanted under partial shade. Provide mechanical support to banana plants to prevent lodging.

➢ In High Altitude Hilly Zone, to manage wilt in pepper, apply *Trichoderma asperellum* or *Bacillus subtilis* @ 25g per vine, along with neem cake @ 500 g per vine. Apply these treatments during rain-free periods.

➢ In Southern Zone, due to high relative humidity, grain midge and earhead bug infestations may occur in sorghum. To manage grain midge, spray Dimethoate 30 EC @ 1,650ml /ha or apply 5% neem seed kernel extract (NSKE) or Phosalone 35 EC @1,150 ml/ha on the 3rd and 18th days after panicle emergence.

Keralam

- In High Altitude Zone, weather conditions are favourable for the incidence of capsule rot in cardamom. Take necessary phytosanitary measures to manage capsule rot and spray 1% Bordeaux mixture @ 500–1,000 ml per plant. As a prophylactic measure against rhizome rot, drench the soil with 2–3 litres of 0.25% Copper oxychloride solution per plant. Application of *Trichoderma* can help to control azhukal and rhizome rot to some extent. Apply mulch and clean the drainage channels to ensure proper drainage.
- In Central Zone, weather conditions are favourable for thrips infestation in chilli, apply 2% neem oil garlic emulsion or spray Thiamethoxam @ 2g per 10 litres of water
- In Northern Zone, provide support to all soft-stemmed and slender-stemmed crops, such as banana, vegetables and climbers. Weather conditions are favourable for shoot and fruit borer infestation in brinjal. Remove and destroy the affected fruits and shoots. Spray Chlorantraniliprole @ 3ml per 10 litres of water, 2–3 times at weekly intervals.
- In Problem Area Zone, severe mite infestation in coconut may lead to nut fall. Mite infestation can be managed by spraying 2% neem oil–garlic mixture, or wettable sulphur @ 4g per litre of water.
- In Southern Zone, complete the transplanting of *Mundakan* paddy and maintain a shallow water level of 1–2 cm in the fields. To prevent uprooting of plants due to strong winds, provide staking to vegetables grown on pandals.

Andhra Pradesh

- In **Krishna Godavari Zone,** maintain adequate soil moisture during grain filling and grain hardening stages in rice. Avoid excess irrigation and water stagnation. Harvest the crop at physiological maturity when 80–85% of grains in the panicle have matured. Dry harvested grains to 12–14% moisture before safe storage.
- In High Altitude Tribal Zone, ensure light irrigation and do light weeding to improve aeration in black gram. Apply 10 kg urea/acre or 2% foliar spray if yellowing appears. Monitor for leaf spot and caterpillars; spray Carbendazim 1 g/l or Neem oil 3% if noticed.
- In **North Coastal Zone**, prepare the land and raise paddy nursery with a seed @ 20-25 kg/acre duly following the seed treatment. Apply 2 kg urea, 6 kg of SSP and 2 kg of MOP as basal application for a nursery bed of 5 cents. Select the new *ragi* varieties suitable for *rabi* season and procure seed material and go for sowing if sufficient moisture is available.
- In **Southern Zone,** undertake nursery sowing of *rabi* rice; sowing of groundnut and horse gram. The present weather conditions are favourable for leaf folder and stem borer in early sown paddy which is at milk stage, to control spray Chlorantraniliprole @ 0.3ml/l of water.
- In **Scare Rainfall Zone of Rayalaseema,** jowar is at vegetative stage. Current weather conditions are congenial for the incidence of fall army worm in jowar, spray Emamectin benzoate @ 0.4 g and Carbendazim 12% + Mancozeb 63% WP @ 2g/ litre of water.

Telangana

- In **Norther Telangana,** as dry weather is likely to prevail for the next five days, take up harvesting and drying of the matured rice crop. Farmers are advised to dry harvested paddy during sunny hours and cover it with tarpaulins during night time.
- In **Southern Telangana,** sowing window for groundnut and cowpea can be extended upto November 30th in Southern Telangana districts. Black gram and green gram can be sown from November 15th to December 10th in Khammam and Warangal districts. In Rice fallows crops like maize, sorghum, and sunflower can be sown up to December 31st.

Karnataka

- In Hill Zone, undertake harvesting of matured paddy, arecanut, ginger and turmeric.
- In Coastal Zone, harvest matured paddy. After harvesting of paddy, undertake sowing of green gram or black gram in paddy fallows using residual soil moisture. In black pepper there is chance of quick wilt, go for pruning of severely affected leaves and destroy them followed by application of FYM enriched with neem cake or Trichoderma or soil drenching with 3 gm Copper Oxychloride or 1% Bordeaux mixture.

- In North East Dry Zone, continue picking of cotton. Undertake sowing of chickpea. Dry the harvested produce (maize, sunflower, groundnut, pearl millet and paddy) properly in the sun before bagging. There is chances of leaf sheath blight incidence in paddy due to continuous cloudy condition, spray Hexaconazole @ 1ml or Trifloxystrobin + Tebuconazole @ 0.4g per liter of water.
- In North East Transition Zone, continue planting of sugarcane. Provide protective irrigation to pigeon pea, chickpea and sugarcane. Incidence of fall army worm is noticed in jowar in some of the blocks, spray Emamectin benzoate 5% @ 0.5g per litre of water.
- In North Dry Zone, continue picking of cotton, harvesting matured sugarcane during dry weather. Continue sowing of wheat wherever adequate residual soil moisture or irrigation is available. Take up nursery sowing of onion when soil moisture and field conditions are suitable. Carry out intercultural operations and weeding in sunflower, safflower, chickpea, sorghum to conserve residual soil moisture.
- In North Transition Zone, undertake picking of cotton. Carry out intercultivation in chickpea, sorghum. To control sucking pests in cotton, spray Flonicamid 50 % WG @ 0.3g or Dinotefuran 20% SG @ 0.3g per litre of water.
- In Eastern Dry Zone, carry out intercultural operation in early sown *rabi* crops. Cloudy weather and high humidity favour spotted pod borer, flower thrips, and pod-sucking bugs in cowpea. If pest incidence crosses threshold levels, spray Chlorantraniliprole 18.5 SC @ 0.3ml /litre or Emamectin benzoate 5 SG @ 0.4 g/litre.
- In South Transition Zone, undertake harvesting of areca nut, coconut and ginger. Sow rabi maize and chickpea wherever soil moisture is adequate. Provide staking and support to vegetable vines and irrigate adequately to avoid moisture stress.
- In Southern Dry Zone, harvest matured pods of cowpea, green gram and black gram on time, dry the produce properly and store it in a safe place. Harvest matured tomato and ginger. Maintain adequate moisture in the rice field and avoid water stress. Provide protective irrigation to maize, red gram, chilli and field bean.

Animal Husbandry

- In Tamil Nadu, avoid water stagnation in and around cattle sheds. Protect feed materials from direct rainfall. Do not allow animals to drink stagnant rainwater to prevent the risk of external parasite infestation.

NORTHEAST INDIA [ARUNACHAL PRADESH, ASSAM & MEGHALAYA, NMMT]

Realized rainfall: Significant rainfall occurred over Dima Hasao, Goalpara, Golghat, Hailakandi, Hojai, Karbi Anglong, Morigaon & West Karbi Anglong districts of Assam; over East Jaintia Hills, East Khasi Hills, Ri-bhoi, South Garo Hills, South West Khasi Hills & West Khasi Hills district of Meghalaya; over Aizwal, Champhai, Kolasib, Lawngtlai, Lunglei & Serchhip districts of Mizoram; over Bishnupur, Chandel, Imphal East, Imphal West, Senapati, Tamenglong & Ukhrul districts of Manipur; over Dimapur, Kephire, Kohima, Longleng, Mokokchung, Paren, Phek, Wokha & Zunheboto districts of Nagaland and over all districts of Tripura.

Advisories:

Arunachal Pradesh

- Continue harvesting of mature *Jhum* rice; properly sundry the harvested produce and store it in covered, sheltered spaces. Undertake harvesting of mature finger millets during dry weather and immediately shift the harvested produce to a proper covered shelter. Provide need-based light irrigation to potato, cabbage, cauliflower, knol-khol and broccoli, preferably during evening hours. Maintain adequate soil moisture to protect young seedlings from cold stress. Complete sowing of field pea and mustard and provide light irrigation to maintain sufficient soil moisture for germination.

Assam

- In Hill Zone, undertake nursery sowing of *Boro* rice. Continue sowing of mustard, *rabi* maize, knol-khol, brinjal and tomato (nursery/transplanting). Leaf folder and aphids may be seen in many fields of black gram and green gram, spray Quinalphos @ 2.5 ml/litre of water followed by Dimethoate @ 2ml/litre of water at 10 days' interval in clear weather condition only.
- In Lower Brahmaputra Valley Zone, harvest matured Sali rice and keep the produce in a safe, dry place. Complete sowing of rajma, rapeseed and mustard (short-duration varieties), planting of potato and

transplanting of cabbage, cauliflower, knol-khol and brinjal. Due to prevailing dry weather, irrigate the newly transplanted seedling of cole crops every alternate day for better root establishment as well as growth and development of the seedling.

- In Upper Brahmaputra Valley Zone, harvest matured *Sali* rice during dry intervals and store it in a dry place. Continue nursery bed preparation for *Boro* rice. Complete planting of potato. Undertake harvesting of matured pods of green gram & black gram. To control saw fly infestation in rapeseed & mustard, spray Thiamethoxam 25WG (@ 3g per 10 litres of water.
- In Barak Valley Zone, harvest matured *Sali* rice during rain-free intervals and store it in a dry place. Relay sowing of field pea in standing paddy can be practised about 10–15 days before rice harvest. Undertake harvesting of green gram during sunny days when approximately 85% of the pods have matured and turned yellow to black. Complete the sowing of *rabi* pulses such as rajma, black gram, French bean and garden pea and planting of potato by the end of this month.
- In Central Brahmaputra Valley Zone, continue land preparation and sowing of wheat. Continue harvesting of *Sali* rice when 80–85% of the grains turn straw-coloured, and of matured sesame pods. Complete sowing of toria, mustard and *rabi* pulses (pea, rajma, lathyrus, lentil) and linseed. Continue planting of potato, and transplanting of cauliflower, brinjal, cabbage, tomato and knol-khol. Saw fly infestation seen in many vegetative toria fields. To control the pest spray Chlorantraniliprole 18.5 SC @ 0.2 ml/litre or Neemacin 1500 ppm @ 3ml/litre of water in the early morning.
- In North Bank Plain Zone, undertake nursery bed preparation and sowing of *Boro* rice. Undertake harvesting of *Sali* rice. Continue planting of potato, sowing of rapeseed (toria) and mustard, and transplanting of knol-khol, brinjal and tomato.

Meghalaya

- Harvest rice when the grain turns golden and 80–85% of grains are hard, only during dry intervals, and keep the produce in a safe, dry place. Complete transplanting of Cole crops and sowing of garden pea. Continue harvesting of matured rhizomes ginger and turmeric. Harvest mature banana fruits immediately. Use propping (bamboo or wooden poles) to support heavily laden plants. Cut and remove broken leaves, pseudo stems, or infected fruit bunches to prevent rot.

Mizoram

- Complete harvesting of matured kharif rice, pea and mustard. Foggy and humid weather favours downy mildew and alternaria leaf spot in cabbage. Remove affected leaves and, if needed, spray Metalaxyl + Mancozeb @ 2.5g per litre of water after the fog clears. Cool, foggy nights are highly favourable for late blight infestation in tomato. Give a protective spray of Mancozeb @ 2.5 g per litre of water; if symptoms appear, spray Metalaxyl + Mancozeb @ 2.5g per litre of water after the fog clears.

Manipur

- Continue sowing of lentil, *rabi* maize and rapeseed/mustard (short-duration varieties), transplanting of onion, planting of potato, and nursery sowing of late-season cole crops (cauliflower, cabbage, broccoli) during favourable weather. To avoid purple color formation and stunt growth in plants of cole crops, spray Copper Oxychloride @ 2g/litre water along with a spray of micronutrients mixture.

Nagaland

- Continue harvesting of lowland rice and soybean. Complete sowing of mustard, rajma and rapeseed (short-duration varieties), planting of potato and transplanting of cauliflower. Undertake harvesting of matured rhizomes of ginger. Due to cool nights and heavy morning dew, ensure good air circulation across potato fields and remove any rotting or diseased seed tubers immediately to prevent early blight or damping-off. Undertake transplanting and gap filling in onion using healthy seedlings from the nursery. Check the base of wilted seedlings in the morning for cutworm damage, and spray neem-based preventative fungicide against leaf sheaths infestation in onion.

Tripura

- Complete nursery sowing of Boro rice. Undertake field preparation for transplanting of rice. Complete

planting of potato. Continue sowing of carrot, radish, fenugreek and spinach, and transplanting of knol-khol, brinjal, cauliflower, cabbage and broccoli.

Animal Husbandry

- Provide dry paddy straw bedding or clean gunny bags in farrowing pens during the night to prevent hypothermia and pneumonia in piglets, and keep pens dry in wet weather.
- To protect poultry from Ranikhet and Gumboro disease, vaccinate the birds. For Ranikhet disease 1st vaccine at the age of 5-7 days and 2nd at the age of 21-25 days' birds. For Gumboro disease vaccinate the birds at the age of 12-14 days old chicken.

Fishery

- Apply Potash @ 4–5 mg/litre of water, Sukrena WS @ 1 litre per bigha of water and lime at the recommended dose to protect fish populations against various bacterial diseases prevalent during the winter season.

EAST INDIA [JHARKHAND, BIHAR, ODISHA, WEST BENGAL & SIKKIM, A & N ISLANDS]

Realised Rainfall: Significant rainfall occurs over Banka, Bhagalpur, Katihar, Khagadia, Lakhisarai, Monghyar, Nalanda, Nawada & Purnea districts of Bihar; over Saraikhela, Simdega, West Singhbhum, Pakur, Lohardaga, Khunti, Koderrna, Jamtara, Gumla, Godda, Dhanbad, Dumka & East Singhbhum districts of Jharkhand; over all districts of Odisha except Angul, Kalahandi, Koraput, Malkangiri, Nawapara & Nawarangpur; over all districts of Gangetic West Bengal; over Malda & South Dinajpur districts of Sub-Himalayan West Bengal and over South Andamn & Nicobar districts of Andaman & Nicobar Islands. Weather remained mainly dry over rest of the region.

Advisories:

Bihar

- In North East Alluvial Zone, prepare the field for sowing of wheat, if wheat is to be sown by sprinkling method, then after plowing, rake the soil to make it soft and crumbly. Prepare land and undertake planting of potato varieties; before planting, treat the potato tubers by dipping in a solution of Carbendazim +Mancozeb @ 2g /litre of water, using 10-12 quintals of seed per acre for good yield and maintain a row-to-row distance of 50-60 cm and tuber-to-tube distance of 15-20 cm. Ensure the harvested produce is sun-dried until the moisture content reaches 12% before storing it.
- In North West Alluvial Plain Zone, continue sowing of wheat; use a seed @ 100 kg/ha for line sowing and 125 kg/ha for broadcasting, maintaining a sowing depth of 5–6 cm, before sowing, treat seeds with Vitavax or Bavistin @ 2g/kg of seed, apply 120 kg Nitrogen, 20 kg Phosphorus and 40 kg Potash per hectare. Carry out sowing of *rabi* maize under favorable conditions, before sowing, treat the seeds with Thiram @ 2.5g/kg of seed. Continue sowing of lentil, treat the seeds with Carbendazim @ 1g per kg of seed, 2-3 days before sowing, followed by Chlorpyriphos @ 2–4 ml per kg of seed. Undertake sowing of late-season carrot during the current month. Undertake coriander sowing in north Bihar, before sowing, gently rub the seeds between both hands to split them into two halves, which helps improve germination and seedling establishment.
- In South Bihar Alluvial Zone, complete cabbage transplanting using recommended varieties such as Pusa Drum Head and Pusa Ageti, maintain spacing of 50–60 × 40–50 cm, apply 20–25 tons of FYM, 120kg N, 80kg P and 80 kg K per hectare during field preparation. Complete the sowing of *rabi* maize, maintain a seed @ 5 kg/ha and a spacing of 30 × 10 cm; before sowing, treat the seed with Carbendazim @ 2g per kg of seed, apply 20 kg N, 45 kg P, 20 kg K and 20 kg S/ha at sowing.

Jharkhand

- In Western Plateau Zone, prepare the fields for wheat to be sown on time, the improved varieties for irrigated conditions are K 1006, K 0307, Birsa Wheat 3, HD 2967, DBW 39, 187 and the improved varieties for rainfed stage are K 1317, HD 3171, HI 1612, sow seed @ 40 kg per acre; before sowing, treat the seeds with Betawax or Carbendazim @ 2.5g per kg seed, if there is termite infestation, treat the seeds before sowing with Imidacloprid 17.8 SL @ 5 ml per kg of seeds. The transplanted cabbage is at seedling establishment to three-week stage, go for hoeing, weeding and apply 55kg urea per acre followed by irrigation. Cole crops may get

affected by diamond back moth, apply Spinosad 45SC @ 0.5ml/litre. Due to decrease in minimum temperature and foggy condition there may be chances of late blight in tomato, to avoid at initial infection stage, spray Metalaxyl + Mancozeb @ 2.5g /litre of water.

Odisha

- In East & South Eastern Coastal Plain Zone, undertake timely harvesting of matured paddy followed by sun-drying. In lodged paddy at the grain-filling stage, tie 4–5 hills together and gently raise them upright after drainage. Undertake transplanting of 30–45-day-old vegetable seedlings, sowing of mustard and groundnut, and planting of banana. For fungal and bacterial diseases in standing vegetable crops, spray Metalaxyl + Mancozeb @ 2 g/litre of water or Carbendazim + Mancozeb @ 2 g/litre of water, along with Plantomycin @ 1 g/litre of water. In tomato, install yellow sticky traps @ 8–10 per acre for whitefly management and apply Azadirachtin 1500 PPM @ 600 ml/acre at the initial stage of infestation.
- In South Eastern & Eastern Ghat High Land Zones, harvest matured paddy, maize, millets and niger during dry weather and properly dry the harvested produce before storage; ensure paddy grains are dried to below 14% moisture. In lodged paddy, tie 4–5 hills together to keep panicles above water. In ginger and turmeric, clear drainage channels to prevent rhizome rot; where disease occurs, drench the beds with Copper Oxychloride 50% WP @ 3 g/litre or Metalaxyl-M 4% + Mancozeb 64% WP @ 2 g/litre of water. Undertake sowing of rabi crops, if soil moisture is suitable.
- In North Eastern Coastal Plain Zone, harvest matured paddy when about 85% of the panicles turn yellow, sun-dry the harvested produce for 2–3 days and store it safely. Utilise the residual soil moisture for land preparation and sowing of rabi crops such as mustard, toria and sunflower. Complete nursery sowing or transplanting of winter vegetables. Provide need-based irrigation to standing crops and vegetables. For management of leaf-eating caterpillars and fruit borers in brinjal, cauliflower, chilli and tomato, spray Emamectin Benzoate @ 0.5 g/litre or Spinosad @ 0.4 ml/litre of water. Avoid excess irrigation in solanaceous vegetables to minimise wilting.
- In Western Undulating Zone, harvest paddy crop when 80–85% of the grains have matured, followed by proper sun-drying (to 14% moisture for consumption and 12% for seed). Undertake cotton picking only after complete boll bursting and dry the *kapas* properly. Utilise the residual soil moisture for sowing of rabi crops such as groundnut, mustard, toria and sunflower, after appropriate seed treatment. Complete transplanting of 30–45-day-old seedlings of cole crops and tomato. In vegetable fields, remove and destroy severely diseased leaves and undertake preventive spraying of Mancozeb 75% WP @ 3 g/litre of water.
- In North Eastern Ghat Zone, harvest paddy at physiological maturity (when about 85% of the grains in a panicle have matured) and sun-dry the grains to 14% moisture (below 12% for seed purpose). Monitor early-sown maize for Fall Armyworm; if infestation is observed, spray Emamectin Benzoate 5% SG @ 80 g/acre or Chlorantraniliprole 18.5% SC @ 80 ml/acre, using 200 litres of water per acre. In ginger and other affected crops, where rhizome rot or leaf spot is observed, apply Cymoxanil + Mancozeb @ 2 g/litre of water.
- In West Central Table Land Zone, harvest mature paddy when 80–85% of the grains in the panicle turn golden yellow, followed by sun-drying to 12–14% moisture, and complete threshing and winnowing during dry weather. Harvest mature groundnut during favourable weather and sun-dry the pods for 4–5 days. Utilise favourable soil moisture for timely sowing of mustard and preparation of raised nursery beds for cole crops. Under prevailing foggy and humid conditions, regularly monitor vegetables for blight, leaf spots, rust and fruit rot; remove and destroy infected plant parts and fruits; undertake need-based plant protection measures after fog clears and foliage dries. Remove damaged and diseased plant parts in banana and papaya.
- In North Central Plateau Zone, harvest matured paddy, sun-dry the grains for 2–3 days and store the produce in clean, dry and safe storage facilities. Utilise the residual soil moisture for sowing *paira* crops such as mung, black gram, pea and mustard about 15 days before paddy harvesting, with 25% higher seed rate; use pregerminated pea seeds for better crop establishment. Undertake timely sowing of wheat using good-quality seeds of suitable varieties, after treating the seeds with Carbendazim @ 2 g/kg of seed. Treat groundnut seeds with Carbendazim @ 2 g/kg of seed before sowing, followed by Rhizobium and PSB culture treatment.

Undertake timely sowing of mustard and toria. Transplant 8–10-week-old onion seedlings.

- In Mid Central Table Land Zone, harvest matured paddy, followed by sun-drying for 2–3 days. Utilise residual soil moisture for sowing rabi crops such as green gram, black gram, cowpea, field pea, lentil, groundnut, toria and sunflower in rice fallows. Complete potato planting after treating tubers with the recommended fungicide solution. In brinjal and tomato nurseries, monitor for wilt and rot and undertake need-based root-zone treatment with Plantomycin @ 10 g + Metalaxyl 8% + Mancozeb 64% WP @ 20 g in 10 litres of water.
- In North Western Plateau Zone, harvested paddy should be dried under sunlight, and threshing floors should be cleaned and disinfected before processing. Complete sowing of mustard, toria and linseed when the soil reaches optimum moisture, ensuring proper drainage and seed treatment before sowing. Undertake transplanting of healthy cauliflower seedlings in the evening, followed by light irrigation wherever necessary. Harvest matured brinjal fruits and undertake regular weeding.

West Bengal

Sub-Himalayan West Bengal

- In Hill Zone, complete harvesting, threshing and drying of mature kharif rice and finger millet. Harvest mature kiwi, chilli and ginger during dry weather. Provide need-based irrigation to garden pea and cole crops at 7 to 10 day intervals and avoid overhead watering in cole crops. Carry out timely weeding and mulching in garden pea, cabbage, cauliflower and broccoli. Undertake land preparation for timely planting of potato.
- In Terai Zone, undertake harvesting of mature rice. Complete sowing of maize and mustard. Continue planting of potato with adequate soil moisture. Spray Metalaxyl + Mancozeb @ 2.5 g/litre of water to manage late blight in tomato and downy mildew in cauliflower during clear weather if symptoms are observed.
- In Old Alluvial Zone, carry out harvesting of mature rice and any remaining black gram. Continue sowing of wheat. Complete sowing of maize and mustard. Plant potato with light irrigation after planting if soil moisture is low.

Gangetic West Bengal

- In Coastal Saline Zone, undertake sowing of mustard or *khesari* (grass pea) as paira crops in standing Aman paddy only after checking that soil moisture is adequate for germination and crop establishment. To manage leaf rot in betel vine, spray Bordeaux mixture (1%) or Copper oxychloride @ 3 g/litre of water during dry weather, and ensure proper drainage.
- In Laterite and Red Soil Zone, harvest, thresh and dry mature rice. Undertake land preparation for potato planting. Provide light irrigation to vegetable crops and apply mulch to conserve soil moisture.
- In Old Alluvial Zone, harvest mature rice. Plant potato in well-prepared fields with adequate soil moisture and provide light irrigation after planting. Complete sowing of mustard and late-sown wheat at the earliest, and irrigate at the crown root stage in earlier-sown wheat.

Andaman & Nicobar Islands

- As **rain/thundershowers at many/most places** likely over Andaman & Nicobar Islands on 30th November & 1st December and **Heavy Rainfall** very likely at isolated places over Andaman & Nicobar Islands on 30th November & 1st, December, 2026, postpone irrigation, intercultural operations and application of plant protection measures & fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid waterlogging.
- As **Thunderstorm accompanied with lightning & gusty winds (40-50kmph)** very likely at isolated places over Andaman & Nicobar Islands on 30th November & 1st December, 2026, provide mechanical support to banana & papaya plantations and staking to young plants and vegetables.
- Harvest, thresh and dry mature rice crops and harvest mature vegetables and areca nut before the expected spell of thunderstorms and rainfall; store the harvested produce in a safe, covered place. Provide proper drainage in vegetable fields and palm basins. Stake or support the plants. Avoid fertiliser application and fresh sowing until the rain subsides. Regularly monitor for spiralling whitefly infestation in coconut and, if observed, spray Neem oil @ 4 to 5 ml per litre of water during a dry spell.

Animal Husbandry

- In Jharkhand, vaccinate calves above 3 months and sheep and goat above two months against Foot and Mouth disease. Provide sufficient clean drinking water to the animals.
- In Odisha, keep cattle, buffaloes, goats and sheep in safe, dry shelters, protected from cold winds, morning dew and wet floors. Provide adequate balanced feed, clean drinking water, dry bedding and proper ventilation. Supplement the daily ration with mineral mixture and salt; additional energy-rich feed such as wheat grains and jaggery (10–20% of daily ration) may be provided during winter. Follow the recommended vaccination schedule against Foot and Mouth Disease (FMD), Haemorrhagic Septicaemia (HS), Black Quarter (BQ) and Brucellosis, and undertake regular deworming of livestock. In poultry sheds, maintain dry litter (4–6 inches), ensure adequate feed and continuous supply of fresh water, provide additional heating during cold weather and follow vaccination schedules against Ranikhet disease and fowl pox.
- In West Bengal, provide warm bedding using dry straw and ensure proper insulation in cattle shelters to protect animals from cold stress. Vaccinate cattle against Foot and Mouth Disease (FMD) as per the schedule, and deworm cattle to improve nutrient absorption and immunity during the foggy and cold season. Ensure clean drinking water and adequate dry fodder.

Fishery

- In A & N Islands, remove unwanted predatory fish and excess aquatic weeds by manual netting to maintain a healthy pond environment and reduce competition for the cultured fish. Strengthen pond bunds and keep overflow outlets clear to prevent loss of fish during heavy rainfall.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Realised rainfall: Weather remained mainly dry over the region.

Advisories:

Maharashtra

- In Konkan,as dry weather is prevailed and likely to prevail during next 5 days, undertake harvesting of matured nuts of arecanut. Continue sowing of horse gram, mustard, lablab bean, chick pea, and watermelon in fallow lands where sufficient soil moisture is available. Undertake sowing of groundnut with assured irrigation. Continue transplanting of chilli, brinjal and tomato with assured irrigation. Continue sowing cucurbitaceous vegetables like ridge guard and bitter guard and leafy vegetables like amaranthus, radish, coriander, spinach and fenugreek with assured irrigation. To minimize water loss through evaporation in orchards, do mulching using available organic waste at regular intervals. Due to cloudy and humid weather, incidence of leafhoppers observed on the new leaves flush of mango. To control spray 2.8% EC Deltamethrin 9 ml per 10 litres of water.
- In Madhya Maharashtra,_as dry weather is prevailed and likely to prevail during next 5 days, continue harvesting of rice, sugarcane, *kharif* onion and picking of cotton. Undertake transplanting of summer onion. Complete pre-seasonal sugarcane planting up to 30th November. Apply irrigation in wheat, sugarcane, *rabi* sorghum, chickpea, pigeon pea, vegetables and orchards as per requirement. Undertake organic mulching in sugarcane, fruit and vegetable crops. To control sap-sucking pests in onion, spray a 5% neem kernel extract; additionally, for effective control spray Imidacloprid 17.8 SL 3 ml per 10 litres of water. If the infestation of pod borer in pigeon pea has crossed the economic threshold level during pod-filling stage, spray 7 ml Indoxacarb 14.5% SC or 3 ml Emamectin Benzoate 5% SG per 10 litres of water. If stem fly incidence is observed in sorghum to control spray Cypermethrin (10 EC) 2 ml or Deltamethrin (2.8 EC) 1.25 ml per litre of water.
- In Marathwada, as dry weather is prevailed and mainly dry weather is likely to prevail during next 5 days, continue harvesting of matured sugarcane, vegetables and picking of cotton. Apply irrigation in pigeon pea, *rabi* maize, sunflower, turmeric, orchards, vegetables and horticultural crops as per requirement. Continue mulching around the stem of orchards for moisture conservation. For management of fall armyworm in sorghum, spray Emamectine Benzoate 5 % @ 4 g or Spinetoram 11.7 SC @ 4 ml per 10 litres of water.If infestation of leaf spot (blight) disease observed in turmeric, collect the infected leaves periodically and

destroy them outside the field, and keep the field clean. Also spray Carbendazim 50% @ 400 g, Mancozeb 75% @ 500 g or Copper Oxychloride 50% @ 500 g in 125 litres of water per acare.

- In Vidarbha,_as dry weather is prevailed and likely to prevail during next 5 days, continue harvesting of matured rice, sorghum, maize, vegetables and picking of cotton. Apply irrigation to pigeon pea, *rabi* safflower, cotton, vegetables and fruit orchards as per availability of water. If sufficient soil moisture and assured irrigation is available, continue sowing of *rabi* crops like chickpea, wheat, linseed and mustard, nursery sowing of onion and sowing of coriander, spinach, fenugreek, radish, carrot, dolichos bean and ivy gourd. Undertake land preparation for nursery sowing of summer rice. In timely sown irrigated wheat crop, apply top dressing of nitrogenous fertilizer (@ 50 kg per hectare 20-25 days after sowing (crown root initiation stage) at the time of irrigation. Apply top dressing of nitrogen fertilizer @ 40 kg N/ha to 25-30 days old *rabi* sorghum/*rabi* maize crop at adequate soil moisture under protective irrigation. Incidence of Phytophthora blight (stem rot or stem blight) observed in pigeon pea, to control spray Fosetyl AL 80% WP @ 20 g per 10 litres of water. Incidence of sap sucking aphids observed particularly in irrigated / late sown safflower crop for above ETL level incidence (30% infested plants) spray Dimethoate 30% EC @ 13 ml per 10 litres of water. Due to cloudy weather, initial incidence of pod borer caterpillar observed in pigeon pea, to control spray Quinalphos 25% EC @ 16 ml or Emamectin Benzoate 5% SG @ 3g per 10 litres of water.

Gujarat

- In Middle Gujarat Zone, complete the harvesting and threshing of matured kharif crops. Undertake morning picking of cotton. Carry out sowing of chickpea and wheat, and undertake timely planting of potato. Provide need-based irrigation to pigeon pea at flowering and to other standing crops according to soil moisture availability. For management of sucking pests in cotton, spray Flonicamid 50 WG @ 3 g or Diafenthiuron 50 WP @ 10 g per 10 litres of water in case of heavy infestation. For Sigatoka disease in banana, spray Propiconazole 25 EC @ 5 ml per 10 litres of water.
- In North Gujarat Zoneregularly pick mature cotton bolls and harvest vegetables at maturity. Complete sowing of chickpea, cumin and wheat; for late-sown wheat, select suitable varieties such as GW-173, GW-11 and Lok-11. Undertake sowing of mustard and maintain the recommended plant spacing by thinning crowded plants. Undertake sowing of potato within the recommended period. Apply light and timely irrigation to mustard, chickpea, wheat and cumin as per their respective crop stages; irrigate potato lightly at 7–10-day intervals and carry out earthing up at 25–30 days after planting. In castor, cotton and vegetable crops, continue need-based irrigation, weeding and intercultural operations. Monitor castor for semi-looper and hairy caterpillar, and, if required, spray Emamectin benzoate 5 WG @ 7.5 g/15 litres of water.
- In Bhal and Coastal Zone, complete the sowing of Bengal gram/chickpea immediately wherever it is still pending. For wheat, undertake sowing from 25 November to 10 December using late-sown varieties such as Lok-1 and Gujarat Wheat-173; avoid further delay. Provide need-based irrigation to standing crops during the early morning or evening, avoiding afternoon hours, and use light irrigation to maintain soil moisture without waterlogging. Undertake intercultural and weeding operations to conserve soil moisture, and use mulching with crop residues or dry grass wherever available. Prefer drip or sprinkler irrigation wherever available and avoid excessive application of nitrogenous fertilizers, particularly under low soil-moisture conditions
- In North West Zone, complete wheat, chickpea, cumin, mustard, fennel and ajwain. Give priority to late-sown wheat varieties such as GW-173, GW-11 and Lok-11 during 26 November–10 December. Undertake cumin sowing only where locally feasible. Carry out thinning in mustard and maintain the recommended row spacing. Apply need-based irrigation to standing castor and cotton crops; in castor, monitor semi-looper and hairy caterpillar and, if infestation warrants, spray Emamectin benzoate 5 WG @ 7.5 g/15 litres of water. In cotton, monitor jassids, aphids and whiteflies; if infestation exceeds the economic threshold level, spray Acephate 75% SP @ 15 g + Fipronil 5 SC @ 15 ml + 1500 ppm neem oil @ 40 ml per 10 litres of water during clear weather.
- In North Saurashtra Zone, complete sowing of rabi crops such as garlic, chickpea, mustard, wheat, coriander and cumin. Give priority to late-sown wheat varieties such as Lok-1 and GW-496, and complete sowing

within the recommended period. Carry out sowing of fennel using varieties GF-11 and GF-12. Apply light, need-based irrigation to cotton, castor, pigeon pea and vegetable crops, avoiding excess irrigation and excessive nitrogen application in cotton. Undertake weeding and intercultural operations in pigeon pea and provide light irrigation at flowering initiation. In cotton, monitor aphids, whiteflies and jassids and, if infestation exceeds the ETL, spray Flonicamid @ 3 g + 1500 ppm neem oil @ 40 ml per 10 litres of water.

- In South Saurashtra Zone, complete sowing of wheat, chickpea, cumin and coriander wherever feasible. Give priority to late-sown wheat varieties and complete sowing without further delay. Avoid excessive irrigation in cumin and coriander to reduce the risk of soil-borne diseases. Apply need-based irrigation to cotton and pigeon pea, and undertake interculturing and hand weeding in pigeon pea under suitable soil-moisture conditions. In pigeon pea, monitor sucking pests and, if necessary, spray Imidacloprid 17.8% SL @ 3 ml/10 litres of water.
- In South Gujarat Zone, complete sowing of wheat, mustard, garlic, onion and winter vegetables using recommended seed treatment and certified seeds. Wheat sowing can continue up to 30 December. Provide need-based irrigation to cotton, pigeon pea, castor and vegetable crops, and avoid excessive irrigation and nitrogen application in cotton. In pigeon pea, monitor pod borer and pod fly and undertake the recommended need-based plant protection measures during clear weather. In mango orchards, withhold irrigation during November to promote uniform flowering; undertake the recommended 1% KNO_3 spray during cool evening hours. In banana and sapota, carry out weeding, earthing up and mulching, and provide irrigation according to soil moisture.
- In South Gujarat Heavy Rainfall Zone, undertake sowing of rabi pulses such as Indian bean, gram and green gram (CO-4) using treated seeds and the recommended basal fertilizer dose. Continue new planting of sugarcane. Carry out weeding and intercultural operations in pigeon pea under suitable soil-moisture conditions and provide need-based irrigation to standing crops, including okra, brinjal, tomato, chilli, pointed gourd, little gourd, elephant foot yam, greater yam and tannia. In okra, remove and destroy yellow vein mosaic-infected plants and, if whitefly incidence warrants, spray Cyantraniliprole 10.26 OD @ 18 ml or Diafenthiuron 50 WP @ 12 g per 10 litres of water.
- In Gujarat, provide cattle and other livestock with a balanced diet comprising good-quality green fodder, dry roughage, hay, concentrate feed and mineral mixture. Maintain clean drinking water, shed hygiene and udder hygiene. Keep animals in clean, dry and well-ventilated shelters, and undertake regular deworming, tick control and disease surveillance. Carry out FMD vaccination and other recommended vaccinations, including Black Quarter and Anthrax, as per the local vaccination schedule. Maintain clean, dry and well-ventilated poultry sheds, provide clean drinking water and balanced feed, and ensure proper sanitation and biosecurity. Protect birds from adverse weather by securing the poultry house and avoiding damp litter. Follow the recommended vaccination schedule, including Ranikhet vaccination (F-1 on the 7th day and R2B at the 8th week).

Fishery

- In Gujarat, maintain pond embankments and ensure proper drainage and water management. Keep fish ponds protected against runoff and water inflow during heavy rainfall, and monitor pond-water conditions.

CENTRAL INDIA [MADHYA PRADESH, CHHATTISGARH]

Realised Rainfall: Significant rainfall occurs over Singrauli & Umaria districts of Madhya Pradesh and over Baloda Bazar, Bilaspur, Janjgir, Jashpurnagar, Korba, Mahasumund, Mungeli, Raigarh, Sakti and Sarangarh Bilaigarh districts of Chhattigarh**.** Weather remained mainly dry over the region.

Advisories:

Madhya Pradesh

- In Vindhya Plateau Zone, undertake sowing of suitable late-sown wheat varieties without further delay, using treated seed. Apply the first irrigation at the crown root initiation (CRI) stage, about 21–25 days after sowing, according to soil moisture. In flowering pigeon pea, monitor pod borers, sap-sucking insects and leaf rollers; use neem oil (1500 ppm or 10,000 ppm) @ 5 ml/litre of water during the early stages of infestation and install

T-shaped bird perches. Undertake sowing of improved garlic varieties such as G-282 and G-323 where locally suitable. Start preparation of onion nurseries.

- In Gird Zone, at this time, the late shown pigeon pea crop is in the flowering and pod formation stage, there may be a possibility of pod borer infestation in the pigeon pea crop, if observed, spray Trizophas at the rate of 750 ml per hectare, mixed in 500 to 600 liters of water. Prepare the fields for sowing wheat and chickpea. There is possibility of spotted insects in the mustard crop, if seen, spray Chlorpyriphos or dimethoate by making a solution of 800 ml of the medicine in 400 to 500 liters of water. Give the potato crop its first irrigation 20 to 25 days after sowing, and irrigate lightly.
- undertake sowing of wheat, giving preference to late-sown varieties. Undertake chickpea sowing only where locally recommended and soil conditions are suitable. In potato, apply the first light irrigation at 20–25 days after sowing, according to soil moisture. In late-sown pigeon pea, monitor pod borers during flowering and pod formation and, if infestation is observed, spray Triazophos @ 750 ml/ha in 500–600 litres of water, as recommended. Monitor mustard for spotted insects and, if infestation occurs, spray Chlorpyriphos or Dimethoate @ 800 ml in 400–500 litres of water per hectare.
- In Jhabua Hill Zone, undertake sowing of wheat using suitable late-sown varieties; where irrigation water is limited, apply hydrogel @ 5 kg/ha in the crop root zone at sowing, as recommended. Irrigate cotton according to soil moisture and monitor sucking pests and leaf curl virus; if sucking-pest incidence warrants, spray Thiamethoxam 25% WG @ 150 g/ha. As cotton bolls are opening, keep the field clean and pick mature *kapas* regularly; install 20–25 T-shaped bird perches/ha in chickpea and 8 pheromone traps/ha for monitoring caterpillar pests.
- In Central Narmada Valley Zone, carry out wheat sowing under dry soil conditions using a seed drill or Turbo Happy Seeder, wherever suitable. Treat seed with Carbendazim @ 2.5 g/kg before sowing. Apply half the recommended nitrogen dose along with the full doses of phosphorus and potash as basal fertilizer; top-dress the remaining nitrogen in two equal instalments during the first and second irrigations. Carry out intercultural operations in standing crops. Monitor sugarcane for early shoot borer and, if infestation is observed, apply Carbaryl (Sevidol 4% G) @ 12.5 kg/ha as a soil application, as recommended.
- In the Satpura Plateau Zone, continue sowing wheat using recommended varieties suited to the region and the prevailing late-sowing conditions. In mustard crops that are about 30–35 days old, apply irrigation according to soil moisture; broadcast the recommended nitrogen dose 3–4 days after irrigation. Monitor cotton for sucking pests and, if infestation exceeds the economic threshold, spray Imidacloprid @ 0.5 ml/litre of water.
- In Nimar Valley Zone, undertake sowing of improved onion variety Bhima Shakti wherever the local sowing window remains suitable. Complete wheat sowing without further delay, using suitable late-sown varieties. Apply the recommended basal fertilizer dose of 20 kg urea, 70 kg DAP and 40 kg potash per acre, along with 10 kg zinc sulphate per acre before sowing, as specified in the advisory. Undertake Chickpea sowing it only where locally recommended; treat chickpea seed with Vitavax @ 2 g/kg or Trichoderma @ 5 g/kg before sowing. In pigeon pea, monitor pod borers and fruit flies during flowering and pod formation and, if infestation warrants, use Coragen @ 60 ml/acre for pod borer and Novaluron + Indoxacarb @ 350 ml/acre for fruit fly, as recommended.
- In Bundelkhand Zone, undertake wheat sowing in irrigated areas using suitable late-sown varieties and treated seed. Treat seed with Thiram + Bavistin @ 1.5 + 1.0 g/kg, respectively, followed by Azotobacter and PSB culture treatment. Monitor wheat and other crops for termite infestation; where infestation is observed, apply Chlorpyriphos 20 EC @ 1 litre in 500 litres of water per hectare, as recommended. In cauliflower, monitor for semilooper and, if infestation warrants, spray Profenophos 50 EC @ 2 ml/litre or Emamectin benzoate 5 SG at the recommended dose. Do not harvest cauliflower curds within one week after spraying.
- In Kymore Platue and Satpura Hills Zone, undertake wheat sowing with suitable late-sown varieties. Undertake chickpea sowing is only where local recommendations permit. Prepare nursery beds and sow treated seeds of tomato, chilli, brinjal, cauliflower and cabbage in rows. Continue sowing spinach, fenugreek, coriander, carrot and radish wherever the local sowing window remains open. Undertake sowing of tomato,

brinjal and chilli only for raising nurseries or where locally recommended.

- In Malwa Platue, farmers are advised for timely Sowing of wheat varieties in the region, seed rate 100 kg/ha, treat wheat seed with Carboxyl 75 WP @ 2.5 g/kg, Carbendazim 50 WP @ 2.5 g/kg seed before sowing, apply of Chlorpyriphos 20 EC @ 5 L/ha with pre-irrigation before sowing in the fields having perennial problem of termite infestation, to control narrow leaf weeds in wheat, apply Clodinofoc 15 WP @ 160 gm per acre per acre and broad leaf weeds, spray 2,4-D 500 ml/acre or Metsulfuran 20 WP at 8 grams per acre at around 30-35 days after sowing. Install pheromone trap 4-5 traps/ha. for monitoring of gram pod borer. Complete wheat sowing at the earliest using recommended varieties. Treat wheat seed with Carboxin 75 WP @ 2.5 g/kg or Carbendazim 50 WP @ 2.5 g/kg of seed. In fields with a recurring termite problem, apply Chlorpyriphos 20 EC @ 5 litres/ha with pre-sowing irrigation, as recommended. In already sown wheat, monitor weeds and apply Clodinafop 15 WP @ 160 g/acre for narrow-leaved weeds or 2,4-D @ 500 ml/acre or Metsulfuron 20 WP @ 8 g/acre for broad-leaved weeds at about 30–35 days after sowing, using the recommended crop-stage and label precautions. Install 4–5 pheromone traps/ha to monitor gram pod borer.

Chhattisgarh

- In the North Hill Zone, complete harvesting and threshing of mature kharif crops and paddy, dry the grains properly before storage, and protect the produce from moisture, rodents and storage pests. Undertake sowing of wheat, using seed treatment and the recommended fertiliser dose. Complete sowing of gram by the month end where soil moisture is adequate. Continue sowing and transplanting of Rabi vegetables and provide light irrigation as required.
- In the Bastar Plateau Zone, sun-dry and thresh harvested paddy and store it safely. Provide irrigation in pigeon pea during pod formation and grain filling if soil moisture is low. In already-sown mustard, irrigate at 25 to 30 days after sowing. Complete sowing of mustard. Prepare for transplanting of tomato, brinjal, chilli and capsicum, and treat the seeds with Thiram @ 2 to 3 g per kg of seed before sowing. Provide staking to bitter gourd, bottle gourd and other cucurbits, and support banana plants bearing flowers or fruits with bamboo.
- In the Chhattisgarh Plain Zone, after the paddy harvest, plough the field 2 to 3 times in a criss-cross manner when it attains suitable tilth, followed by planking to obtain a fine, level seedbed. Sow late-sown wheat varieties suited to the sowing time. Complete sowing of chickpea by the month end using wilt-resistant varieties and treated seed. In mustard, give the first irrigation 25 to 30 days after sowing (4 to 6 leaf stage); in case of aphid infestation, release predators such as lady bird beetle and Chrysopa; in case of heavy infestation, spray Dimethoate 30 EC @ 1 litre per hectare in 600 to 800 litres of water or Imidacloprid @ 5 ml per 15 litres of water, and repeat after 15 days if infestation recurs. In banana, undertake earthing up.

Animal husbandry

- In Madhya Pradesh, deworm cattle, goats and newborn animals as per the recommended schedule. For control of external parasites, use Malathion, Butox or Cypermethrin at the recommended concentration of 3 ml/litre of water, following the product label and veterinary advice.
- In Chhattisgarh, keep animals in a clean, dry and sheltered shed at night, especially when temperatures drop. Provide dry fodder and clean drinking water. Deworm animals to improve nutrient absorption. Feed colostrum to newborn calves within one hour of birth, and not later than two hours.

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

Realised Rainfall: Significant rainfall occurred over Sonbhadra district of Uttar Pradesh. Weather was mainly dry over rest of the region.

Advisories:

Himachal Pradesh

- In Mid Hills Sub Humid Zone, provide support to pea plants and apply light irrigation to maintain moisture in the soil. Carry out timely weeding and earthing up operation. Apply light irrigation to garlic, to maintain the soil moisture. Undertake transplanting of onion seedlings.

- In Sub Montane and Low Hills Sub Tropical Zone, carry out weeding in wheat. Apply light irrigation to onion and garlic. Carry out thinning operation in carrot, radish and turnip. Complete transplanting of cabbage, cauliflower, knol-khol and broccoli. Carry out thinning and weeding in timely sown mustard.
- In High Hills Sub Temperate Wet Zone, apply light irrigation to garden pea to maintain adequate soil moisture and carry out weeding & earthing up operation. Continue nursery sowing of onion. Carry out earthing up operation in cabbage and cauliflower. Provide light irrigation to spinach, radish, turnip and coriander. Continue sowing of wheat.

U.T. of Jammu & Kashmir

- In Sub Tropical Zone, undertake sowing of wheat. Continue sowing of gram, lentil and field pea. Carry out shallow hoeing and weeding in mustard. Apply irrigation to toria and gobhi sarson as per requirement. Carry out hoeing and weeding operation in leafy vegetables like spinach, coriander and fenugreek. Carry out hoeing cum weeding as well as earthing up in potato and root crops like carrot and radish.
- In Intermediate Zone, continue sowing of wheat and complete sowing of oats, mustard, field pea & gram. Carry out earthing up operation in cole crops (cauliflower, cabbage & knol khol) and hoeing & weeding in root crops (radish & carrot).
- In Valley Temperate Zone, carry out thinning in brown sarson. Carry out weeding in wheat. Continue sowing of field pea and lentil. Conduct early hoeing or light hand weeding before irrigation in fodder oats, berseem and lucern. Undertake planting of garlic and transplanting of onion seedlings in well prepared land.

U.T. of Ladakh

- In Cold Arid Zone, carry out shallow hoeing in green leafy vegetables. Perform hoeing between 11:00 am and 2:00 pm when greenhouse air and soil temperatures are warmest. Apply organic mulch. Seal air leaks. Inspect the polyhouse and repair any tears with UV-resistant tape to stop sub-zero drafts. Ventilate briefly at midday. Open vents or doors slightly for 30–60 minutes around noon on sunny days to release excess humidity, then close them tightly by 2:30 PM to trap maximum heat before sunset. Water strictly in the morning. Irrigate lightly between 10:30 AM and 12:30 PM so excess surface moisture evaporates before nightfall. Never irrigate in the late afternoon or evening, as wet soil freezes overnight and damages roots. Reduce watering frequency. Because evaporation is low in November, water only when the top inch of soil feels dry.

Uttarakhand

- In Bhabar and Tarai Zone, carry out weeding & hoeing in sugarcane and apply irrigation. Undertake harvesting of red gram. Carry out weeding and hoeing in mustard, rapeseed, chickpea and lentil. Undertake harvesting of vegetable pea.
- In Hill Zone, carry out weeding and thinning in fenugreek, followed by light irrigation, as per requirement. Continue transplanting of onion. Apply irrigation to wheat. In case of aphid infestation in mustard, avoid excess nitrogen application. If aphid population is 50-60 aphids per 10 cm terminal shoot, spray Imidacloprid 17.8%SL.
- In Sub Humid and Sub Tropic Zone, apply irrigation to wheat and barley. Carry out weeding in lentil and mustard. Apply irrigation in vegetable pea and cauliflower as per requirement. Continue harvesting of ginger.

Punjab

- In Western Zone, undertake harvesting of spinach, Chinese cabbage and fenugreek. Under late-sown irrigated conditions, varieties PBW 752, PBW 771 and PBW 757 should be preferred for sowing of wheat. First cutting of early sown oats may be taken during December month to meet the fodder scarcity.
- In Western Plain Zone, apply irrigation to September planted sugarcane crop. Undertake sowing of wheat and *raya*. Plan irrigation in vegetables as per requirement and soil moisture conditions.
- In Undulating Plain Zone, undertake sowing of wheat and *raya*. Undertake sowing of late season varieties of carrot, tomato, brinjal, onion, radish, cauliflower and turnip. Weeding and thinning should be done in *gobhi sarson* and *taramira* to reduce the moisture and nutrient stress.
- In Central Plain Zone, undertake harvesting and crushing of early-maturing varieties of sugarcane. Complete sowing up to the 4th week of November of wheat varieties and durum wheat WHD 943 and PDW 291 under

irrigated conditions. Complete sowing of *raya* and African *sarson*, and of radish, turnip and carrot. Continue transplanting 4–6 weeks old seedlings of cabbage, late-season cauliflower, Chinese cabbage and broccoli. Take up nursery sowing of onion. To early sown raya, apply 45 kg urea per acre with first irrigation.

- In Sub-Montane Undulating Zone, continue sowing of wheat, gram, *gobhi sarson, taramira* and lentil. Under irrigated conditions, sow wheat varieties PBW 927 and PBW 660. Sow chickpea variety PBG 10, PBG 7 and PBG 5 under irrigated conditions. Undertake sowing of onion nursery, radish, carrot, china sarso, coriander, fenugreek and *palak*.

Delhi

- Complete sowing of wheat. Carry out thinning and weeding in timely sown mustard. Transplant healthy seedlings of late-season cauliflower, cabbage, broccoli and tomato on raised beds, and prepare nurseries for late crops. Complete sowing of pea at the earliest. This is a suitable time for sowing *sarson saag, bathua,* radish, spinach, fenugreek, coriander and turnip. Take up nursery sowing of rabi onion. Monitor painted bug constantly in timely sown mustard.

Uttar Pradesh

- In the Eastern Plain Zone, complete late sowing of wheat, using suitable varieties such as HD-3271, Halna, DBW-107, HD-3118, HI-1634 (Pusa Ahilya), PBW-752 and WH-1125; late sowing can continue up to December. Complete sowing of mustard, barley & linseed and planting of garlic. Complete potato planting only in areas where late planting is still practised. Intercropping of potato, yellow mustard, vegetable pea and lentil may be taken up with already established autumn-planted sugarcane. Thin overcrowded mustard plants to maintain about 15 cm spacing within 15–20 days after sowing. Prepare nurseries of brinjal and tomato, and carry out weeding, earthing up, top dressing and need-based irrigation in previously transplanted crops. Monitor cabbage for insect pests and, if required, use neem seed kernel extract as recommended.
- In the Central Zone, continue sowing of irrigated wheat with treated seed, giving preference to late-sown varieties wherever the timely sowing period has passed. Complete sowing of chickpea, field pea and mustard. Continue potato planting only where late planting is locally recommended. Green pea, carrot, radish, garlic, coriander, spinach and fenugreek may be sown where the local sowing window is still open. Transplant cauliflower and cabbage seedlings into the main field. In late-sown toria, which is at the flowering-to-pod-formation stage, provide light irrigation if required to avoid moisture stress. Carry out weeding and hoeing in pea at 20–25 days after sowing.
- In the Western Plain Zone, continue late sowing of wheat, barley and other rabi crops wherever the local sowing window remains open. Sow improved oat varieties for green fodder, and continue sowing of carrot, radish, garlic, coriander, spinach and fenugreek wherever feasible. Transplant cauliflower, cabbage, tomato and chilli seedlings into the main field. In vegetable crops, monitor fruit and leaf borers and, if required, spray Azadirachtin 1500 ppm @ 2 ml/litre of water at 8–10-day intervals. In late-planted potato, provide need-based irrigation, apply 108 kg urea/ha as top dressing at 25 days after sowing, and carry out earthing up; maintain an irrigation interval of about 10–15 days according to soil moisture. Provide need-based irrigation to *ber*, *amla*, lemon, guava, papaya and banana orchards. Arrange harvesting and marketing of mature amla fruits.
- In the Bundelkhand Zone, undertake sowing of wheat where optimum soil moisture is available, giving preference to late-sown varieties. Prepare nurseries of broccoli, cauliflower and cabbage and transplant seedlings when ready. Carry out thinning and weeding in mustard, and one hand weeding in chickpea and pea crops wherever required. In already established chickpea and field pea crops, apply Imazethapyr @ 1 litre/ha at 20–25 days after sowing for weed control, provided the formulation and use are approved for the crop. Nursery sowing of *rabi* onion may be undertaken where the local sowing window is still open, using 10 kg seed/ha and treating the seed with Captan @ 2.5 g/kg of seed.

Rajasthan

- In Hyper Arid Partially Irrigated Western Plain Zone, harvest the groundnut crop at physiological maturity, if still pending. Undertake sowing of cumin, fenugreek, *isabgol*, chickpea, barley and wheat with pre-sowing irrigation; treat seeds before sowing.

- In Flood Prone Eastern Plain Zone, apply first irrigation in wheat crop at crown root initiation stage 20-25 days after sowing. Carry out regular weeding in wheat and chickpea. To control mealybug in guava, spray Triazophos 40 EC @ 2 ml/litre or Dimethoate 30 EC @ 1ml/litre of water and repeat after 15–20 days.
- In Southern Humid Plain Zone, complete sowing of *rabi* maize promptly to prevent yield loss, using 20 -25 kg seed per hectare & treated seeds with Trichoderma @ 10 g/kg. Carry out first hoeing and weeding in gram and mustard/rapeseed at 25–35 days after sowing. Sow wheat and radish with improved varieties.
- In Transitional Plain Zone of Inland Drainage, apply Quinalphos 1.5% dust @ 25 kg/ha for cutworm infestation in chickpea crop. Undertake thinning and weeding in timely sown mustard crop for weed control. Continue sowing of wheat using improved varieties; treat seeds with Mancozeb 75% WP @ 2.5g per kg or Carbendazim 50%WP @ 2g per kg of seeds.
- In Semi-Arid Eastern Plain Zone, undertake sowing of wheat, barley, fenugreek, ajwain, cumin and *isabgol* using healthy, certified seed. To control loose smut and flag smut in wheat, treat seed with Carboxin or Carbendazim @ 2 g/kg of seed, and to control termites, mix Quinalphos 1.5% dust @ 6 kg per bigha into the soil at final ploughing. Undertake transplanting of cauliflower and cabbage seedlings.
- In Arid Western Plain Zone, complete sowing of wheat with improved varieties. Undertake sowing of *isabgol* (psyllium) with improved varieties. To control painted bug in mustard crop, spray Monocrotophos 36 WSC @ 1 litre per hectare. Undertake sowing of cumin, treating seed with Carbendazim @ 2g or Trichoderma Viride @ 4g per kg seed; apply light irrigation after sowing and second irrigation 6-7 day interval.
- In Southeastern Humid Plain Zone, perform thinning in mustard crop to maintain an appropriate spacing of 10–15 cm between plants 15–20 days after sowing; carry out weeding and hoeing to retain soil moisture. Ensure sufficient soil moisture for uniform seed germination and proper seedling emergence in wheat crop; avoid excessive irrigation during germination to protect the top layer of the soil from crust. Complete sowing of chickpea and lentil at the earliest with improved varieties; avoid flood irrigation after sowing, as chickpea is highly sensitive to excess moisture. Perform light hoeing and weeding 20–25 days after sowing in chick pea crop to facilitate aeration in the root zone, control early-stage weeds, and conserve soil moisture during dry weather.
- In Irrigated North Western Plain Zone, undertake sowing of wheat, chickpea and barley with recommended varieties. Apply irrigation in sugarcane crop in regular interval. To control fruit drop in kinnow orchards, spray Bavistin 50 WP @ 1g/litre or Propineb 70 WP @ 2g/litre of water.
- In Sub-Humid Southern Plain and Aravali Hill Zone, complete sowing of wheat and barley with recommended varieties. In wheat fields with perennial termite infestation, apply Chlorpyriphos 20 EC @ 5 litres/ha with pre-irrigation before sowing. Control mustard sawfly by dusting Methyl Parathion 2% or Carbaryl 5% W.P. @ 20-25 kg/ha.

Animal Husbandry

- In Rajasthan, protect animals during changing weather conditions. Include the mineral mixture in the animal diet. Maintain cleanness in the cattle sheds as preventive measure for parasite and infectious disease; provide warm shelter during night and early morning hours.

Apiculture

- In Sub Tropical Zone of Jammu & Kashmir, provide winter packing to bee colonies to protect them from cold. Migrate colonies to areas having floral resources. Give need based sugar feeding. Inspect honey bee colonies after every 7 - 10 days' interval to maintain cleanliness and to check the insect pest attack particularly mite and brood infestation. For protection of ants put the legs of apiary into water so that ants cannot attack apiary. Reduce wasp attack by reducing the entrance of hives, destruction of wasp nest giving baits.

The Agromet Products in this Bulletin are generated by Agrimet Division, weather forecast issued by NWFC, New Delhi and Agromet Advisories are prepared based on the DAAS Bulletins issued by different Agro-meteorological Field Units (AMFUs).