



National Agromet Advisory Service Bulletin



Friday 18th August 2017
(For the period 18th to 23rd August 2017)



Issued by
India Meteorological Department

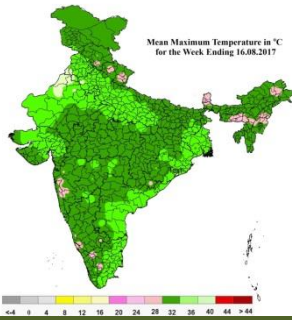
Weblink For

District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>

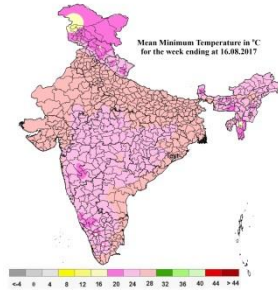
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Spatial distribution of weather parameters for the week ending 16.08.2017

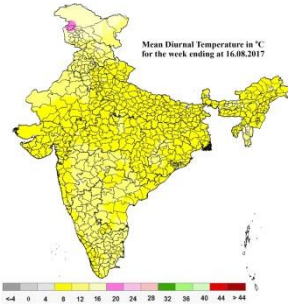
Mean Maximum Temperature (°C) for the week ending 16.08.2017



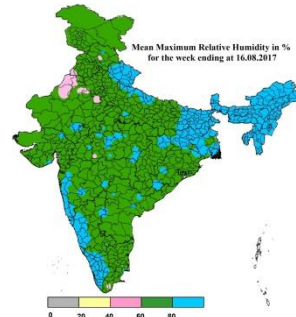
Mean Minimum Temperature (°C) for the week ending 16.08.2017



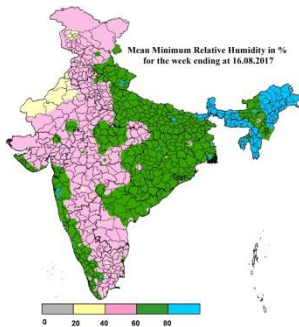
Diurnal Temperature Variation (°C) for the week ending 16.08.2017



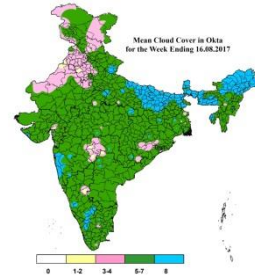
Mean Maximum Relative Humidity (%) for the week ending 16.08.2017



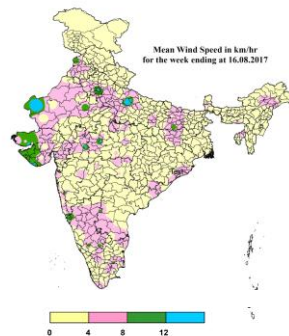
Mean Minimum Relative Humidity (%) for the week ending 16.08.2017



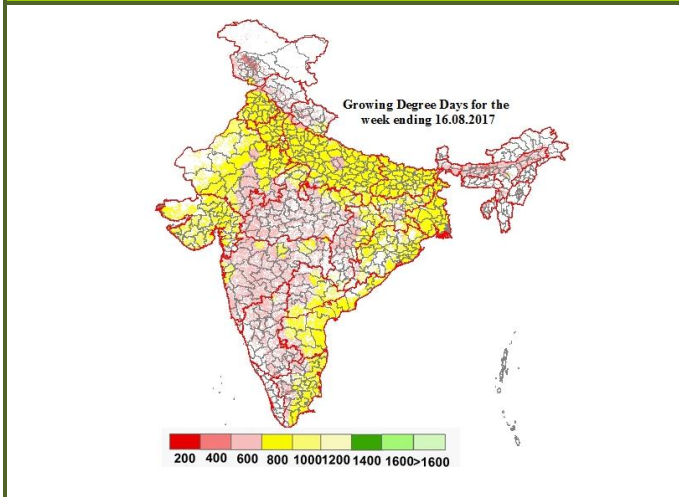
Mean Cloud Cover (okta) for the week ending 16.08.2017



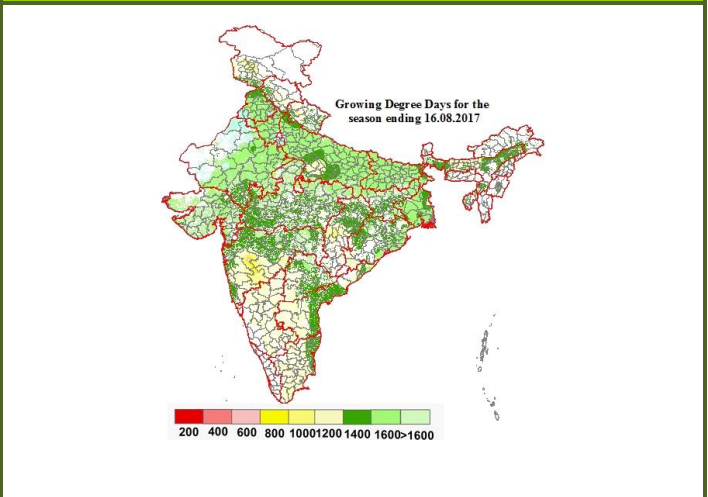
Mean Wind Speed (km/hr) for the week ending 16.08.2017



**Growing Degree Days for the week ending
16.08.2017**

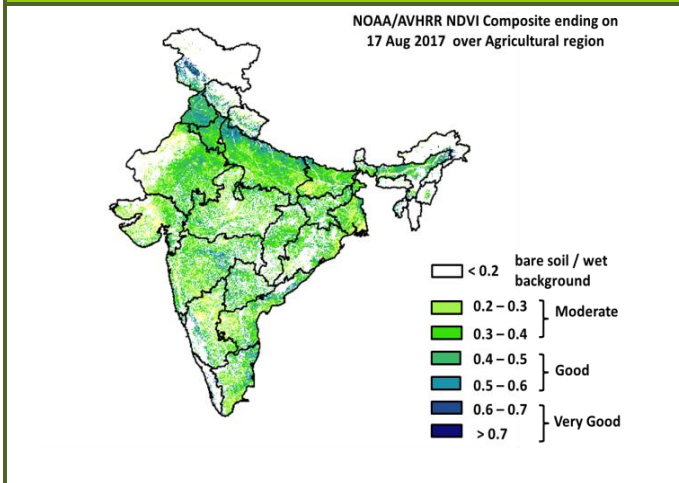


**Growing Degree Days for the season ending
16.08.2017**

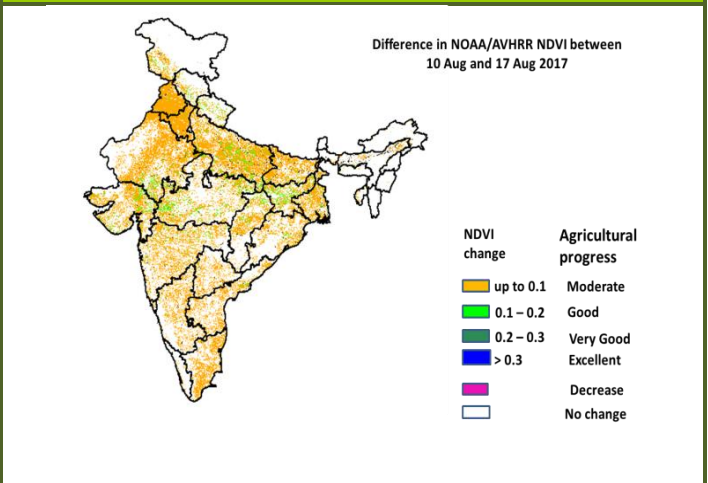


*Base temperature for *Kharif* Season is taken as 10⁰ C

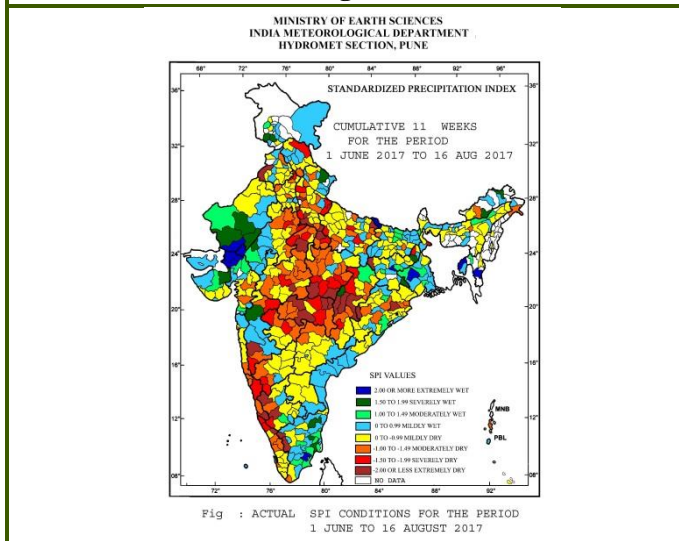
**NOAA/AVHRR NDVI composite ending on 17th
August 2017 over Agricultural regions of India**



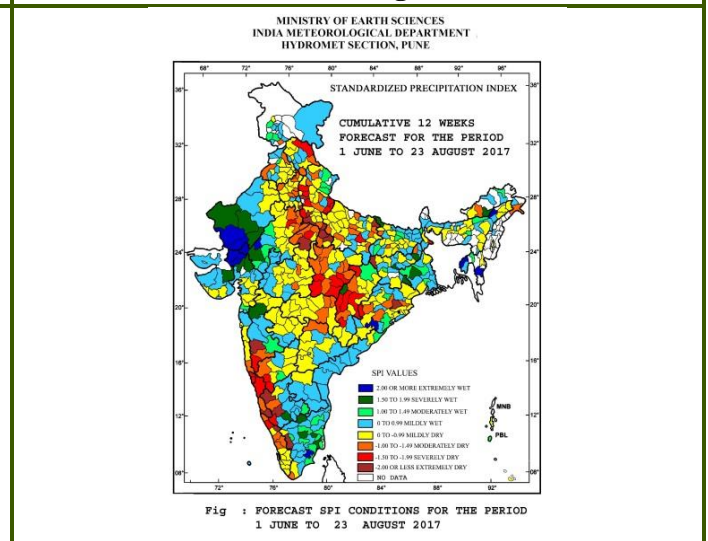
**Difference in NOAA/AVHRR NDVI between 10th
and 17th August 2017**



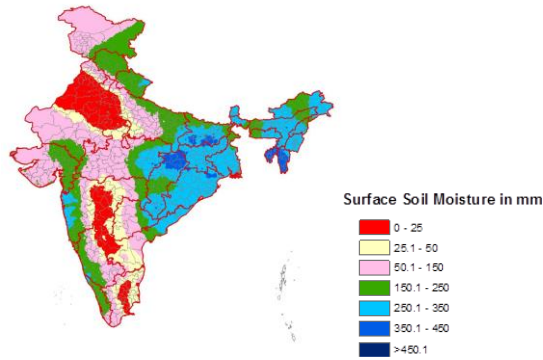
**Standardised Precipitation Index
Cumulative 11 weeks for the period 1st June 2017 to
16th August 2017**



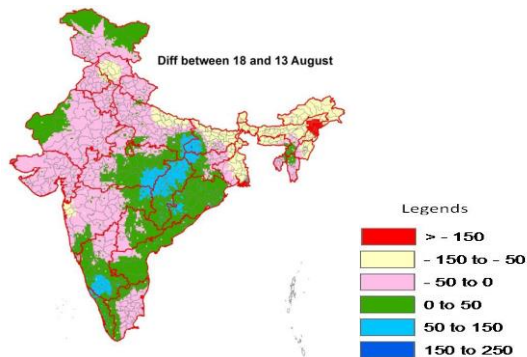
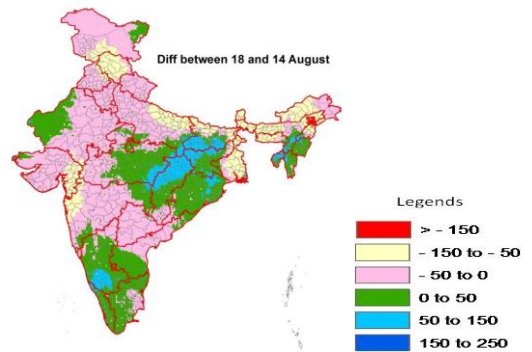
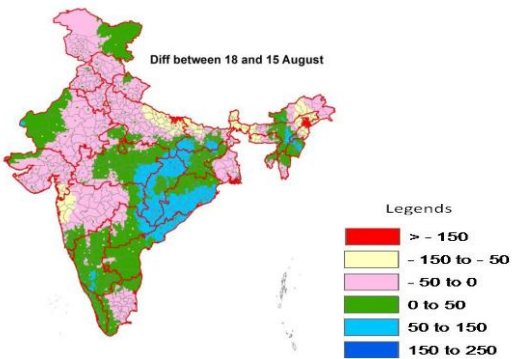
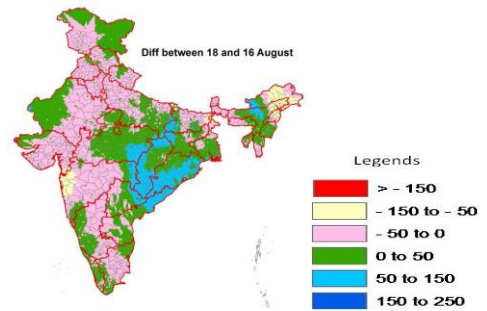
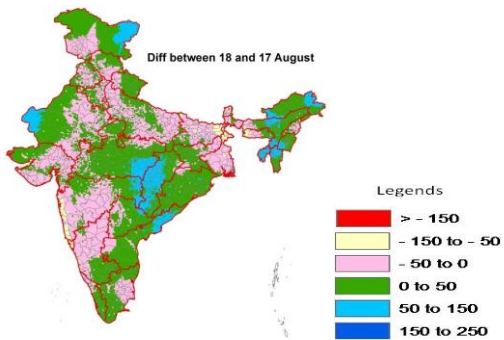
**Standardised Precipitation Index
Cumulative 12 weeks forecast for the period 1st June
2017 to 23rd August 2017**



Daily Soil Moisture (mm) for 18th August 2017



Difference of Soil Moisture (mm)



Weather Forecast for next 5 days valid upto 0830 hours of 23rd August 2017

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- Maximum temperatures likely to rise by 2-3°C over plains of northwest India during next 2 days and no significant change over rest parts of the country during next 3-4 days.

5 Day Rainfall Forecast (Mid day) 18th August 2017

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

% 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		

Weather Warning during next 5 days

- **18 August (Day 1):** Heavy to very heavy rain at few places with extremely heavy falls very likely at isolated places over Telangana; heavy to very heavy at isolated places over Vidharbha, Chhattisgarh, Coastal Andhra Pradesh; heavy at isolated places over Uttarakhand, East Uttar Pradesh, East Madhya Pradesh, Jharkhand, Sub-Himalayan West Bengal & Sikkim, south Odisha, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathawada, Konkan & Goa, Rayalaseema, Karnataka, Tamilnadu & Puducherry and Kerala.
- **19 August (Day 2):** Heavy to very heavy rain at isolated places over Madhya Maharashtra, Konkan & Goa and

Coastal Karnataka; heavy rain at a few places with heavy to very heavy falls at isolated places over Vidarbha and Marathawada; heavy at a few places over Telengana; heavy at isolated places over Madhya Pradesh, Chhattisgarh, Odisha, Andaman & Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh, Interior Karnataka and Kerala.

- **20 August (Day 3):** heavy rain at a few places with extremely heavy falls at isolated places Konkan & Goa; heavy to very heavy rain with extremely heavy falls at isolated places Madhya Maharashtra; heavy to very heavy rain at isolated over Marathawada and Andaman & Nicobar Islands and Coastal Karnataka; heavy at isolated places over East Rajasthan, Madhya Pradesh, Chhattisgarh, Vidarbha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Interior Karnataka and Kerala.
- **21 August (Day 4):** Heavy to very heavy rain at isolated places over Konkan & Goa; heavy at isolated places over Uttarakhand, East Rajasthan, West Madhya Pradesh, Odisha, Andaman & Nicobar Islands, Gujarat, Madhya Maharashtra, Coastal Karnataka and Kerala.
- **22 August (Day 5):** Heavy at isolated places over Uttarakhand, East Rajasthan, Odisha, Andaman & Nicobar Islands, Saurashtra & Kutch, Coastal Karnataka and Kerala.

Weather Outlook for subsequent 2 days from 23rd to 25th August 2017

- Rain at most places with isolated heavy falls very likely over Andaman & Nicobar Islands and Western parts of the country.
- Rain at many places very likely over central India; Isolated to scattered rainfall very likely over rest parts of the country.

Salient Advisories

- Avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops in areas likely to receive rainfall. Arrange for adequate drainage to avoid water stagnation in standing crop fields in regions likely to receive heavy/ heavy to very heavy rainfall.
- In North East and North West Alluvial Zone of **Bihar**, in flood affected areas, drain out excess water from standing crop fields. In South Bihar Alluvial Zone, prevailing weather is congenial for attack of leaf folder/stem borer in rice. Farmers are advised to monitor their fields regularly, if observed, then broadcasting of Cartap 4% granules @ 10 kg/acre is recommended. Also in maize fields, constant monitoring of stem borer should be done, if insect population is above ETL, spray Carbrayl @ 2 gm/ litre of water on a non rainy day.
- In Hill Zone of **Assam**, keeping in view of rain for next five days, avoid sowing of sesame and nursery sowing of vegetables. Drain out excess water and provide adequate drainage in arhar crop.
- In **North Gujarat** Zone, continue resowing of short duration crop like green gram, cluster bean as contingent crops where crops are damaged due to heavy rain/ floods. Under optimum moisture condition, continue transplanting of fennel in main fields. In Bhal and Coastal Zone of Gujarat, carry out sowing of castor and fodder sorghum (S-1049, GFS-4 and GFS-5 varieties) after spells of heavy rain.
- In **South Interior Karnataka**, in Southern Transition Zone, maintain optimum water level in transplanted rice. Provide proper drainage to remove excess water from the ginger and turmeric fields. In Central Dry Zone, continue sowing of short duration finger millet (varieties Indaf-5, Indaf-9, and GPU-28, MR-01, MR-06 & ML-365) and sunflower under optimum moisture condition. In Eastern Dry Zone, continue sowing of medium to short duration crops like ragi (Indaf-5, 9, HR-911, GPU-26, 28, 45 & 48, PR-202, ML-365), maize (Ganga, Deccan, Vijaya composite and Composite NAC) and groundnut (JL-24, KCG-2, GBBD-4) and cowpea (KBC-1, TVX-944 and PKB-4 for vegetable purpose).

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

- **Realised Rainfall:** Rainfall occurred in Kannur, Ernakulam, Eduki, Kasargod, Kottayam, Pathanamthitta and Wyand districts of Kerala, all districts of Coastal Karnataka, all districts of South Interior Karnataka except Chitradurga, Davangere, Hassan in Koppal and Raichur districts of North Interior Karnataka, all districts of Tamil nadu except Chennai, Coimbatore, Kanyakumari, Nilgiris, Theni, Tirunelveli, Tiruppur, Toothukudi, in all districts of Coastal Andhra Pradesh except Nellore and Prakasham, all districts of Rayalaseema, all districts of Telangana except Mahbubnagar, Medak, Rangareddy during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Kerala:**
 - In the Northern Zone, continue planting of black pepper and cultivars of bananas like Poovan, Palayankodan and Robusta. In the Southern Zone, continue tapping of rubber, apply Indofil M 45 4g/1 litre of water on tapping panels to control fungaj disease.
 - In the Central Zone, due to prevailing weather, there is chance for attack of thrips and mites in vegetables. To control, apply Spiromecifen @ 8 ml/10 litres of water after current spells of rain.
 - In the Problem Area Zone, if infestation of pseudostem weevil is noticed in bananas, apply Fipronil @ 3ml/litre of water at 5, 6 and 7 months after planting. Ensure drainage in nutmeg and pepper fields.
 - **Karnataka:**
 - As rainfall is very likely at most/many places over Karnataka during next 5 day, along with heavy to very heavy rain at isolated places over Coastal Karnataka on 19th, 20th and 21st, heavy at isolated places over Karnataka on 18th, over Interior Karnataka in 19th and 20th August, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops and vegetables to avoid water stagnation.
 - In the Southern Dry Zone, use 20-25 days old seedlings for ragi transplanting. In broadcasted ragi pass harrows to maintain proper plant population.
 - In Coastal Zone of Karnataka and Hill Zone, maintain optimum water level in transplanted rice.
 - In Southern Transition Zone, maintain optimum water level in transplanted rice. Provide proper drainage to remove excess water from the ginger and turmeric field. Continue transplanting of ragi crop.
 - In Central Dry Zone, continue sowing of short duration finger millet (varieties Indaf-5, Indaf-9, and GPU-28, MR-01, MR-06 & ML-365) and sunflower under optimum moisture condition.
 - In Eastern Dry Zone, continue sowing of medium to short duration crops like ragi (Indaf-5, 9, HR-911, GPU-26, 28, 45 & 48, PR-202, ML-365), maize (Ganga, Deccan, Vijaya composite and Composite NAC), groundnut (JL-24, KCG-2, GBBB-4), cowpea (KBC-1, TVX-944 and PKB-4 for vegetable purpose).
 - In Southern Transition Zone, as a precautionary measure, spray Carbendizim + Mancozeb (SAAF) @ 2.0 g / litre of water followed by (15 days after) Chlorothalanil @ 2.0 g/ litre of water to avoid sigatoka /leaf spot disease in banana after current spells of rain.
 - In Central Dry Zone, wherever incidence of sucking pests in already sown cotton crop is noticed spray Imidacloprid @ 0.5 ml/litre of water after current spells of rain.
 - Incidence of leaf eating caterpillar in soybean in North East Transition Zone is noticed; for effective management of leaf eating caterpillar in Soybean, application of lambda Cyahalothrin @ 0.5 ml/litre of water is recommended in clear weather. Incidence of leaf minor and whitefly is noticed in tomato ecosystem; for its effective management, application of Imidacloprid @ 0.5 ml /liter of water is recommended after current spells of rain.
 - In Hill Zone, there is chance of infestation of stem borer in ginger, turmeric and cardamom; for control, spray Monocrotophos @ 1.2 ml or Chloropyriphos @ 2 ml /litre of water after current spells of rain.
 - **Andhra Pradesh:**
 - In the Krishna Godavari Zone, complete sowing of maize, black gram, green gram and red gram and nursery sowing of paddy after current spells of heavy rain .Remove excess water immediately from chilli fields to avoid water logging.
 - In the Scarce Rainfall Zone of Rayalaseema, complete sowing of contingent crops like jowar, foxtail millet, greengram, redgram, castor, horsegram and cluster bean.
 - In the Krishna Godavari Zone, under present weather conditions, gall midge may attack late sown rice crop. If the problem is severe, to control, apply Corbofuron 3G @ 10 kg/ acre on the standing crop after current spells of rain.
 - **Telangana:**
 - In South Telangana Zone, frequent inter cultivation in rainfed crops like redgram, castor, soybean, cotton, maize etc. may be undertaken after current spells of heavy rain.
 - In Southern Telangana Zone, prevailing weather conditions are congenial for the incidence of hispa and stem borer in rice. If incidence is noticed, to control Hispa, spray Profenophos @ 2ml or Chlorpyriphos @ 2.5 ml per liter of water and for control of stem Borer, apply Carbofuran 3G @ 10kg or Phorate @ 4 kg per acre after current spells of rain.

- **Animal Husbandry**
- In the Central Zone of Kerala, vaccinate cattle against Haemorrhagic septicaemia.

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

- **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh, Assam & Meghalaya, Aizwal, Lunglei and Serchip districts of Mizoram, Imphal West district of Manipur, Kohima and Phek districts of Nagaland, all districts of Tripura during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rainfall is very likely at most/many places over Assam & Meghalaya, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura during the period, along with heavy rain at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 18th and 20th and over Arunachal Pradesh on 18th August, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crops and vegetables to avoid water stagnation.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Hill Zone of Assam, keeping in view of rain for next five days, avoid sowing of sesame and nursery sowing of vegetables. Drain out excess water and provide adequate drainage in arhar crop.
 - In Barak Valley Zone of Assam, apply top dressing of 5 kg Urea at the time of tillering stage of Sali rice, i.e., 20 -30 days after transplanting of seedlings. For leaf miner attack in the Sali rice field, apply Chlorpyrifos @ 2ml per liter of water.
 - In the Central Brahmaputra Valley Zone, undertake direct seeding with the photo insensitive short duration cultivars like Luit, Kapilee, Kolong and Dishang up to August. Carry out late and staggered planting up to mid of September with 60 to 80 days old seedlings of the paddy varieties like Prafulla (80 days) and Gitesh (60 days) after receding of flood. Carry out transplanting of old seedlings of other improved long duration variety like Monohar Sali up to August. Postpone sowing of sesame seeds due to possibility of heavy rainfall. In already sown sesame crops, take measures to drain out excess water from the fields.
 - In Hill Zone of Assam, current weather is favourable for fruit borer in bhindi crop. Set up pheromone trap @ 3-4 / acre for monitoring fruit borer.
 - **Manipur and Tripura:**
 - In Manipur, undertake transplanting of healthy seedlings of early cauliflower (variety like Early Himlata/White Shot/White treasure) at a spacing of 45cm x 45cm. Provide proper drainage in maize, soybean, groundnut, black gram, rice bean and turmeric fields. Undertake sowing/planting of onions.
 - In Tripura, undertake timely harvesting of Aus rice crop and keep it under shade to protect from rain. Maintain proper drainage in Jhum rice, maize and kharif vegetables fields. Carry out earthing up operation in the groundnut field for better pod formation.
 - In Manipur, for kharif rice, spray Streptocycline @ 2g/15 litres of water (at least three pumps per sangam) for bacterial leaf blight; Imidachloprid @ 8ml/ 15 litres of water for sucking insects and Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water for case worm, borer, leaf folder & thrips, after rains.
 - In Tripura, apply combine solution of Steptomycine Sulphate and Tetracycline 50gm with Copper Oxichloride 200gm per kani to manage bacterial blight attack in Aman rice main field. Stop application of Urea in the field.
- **Animal Husbandry**
 - In Northeastern states, immunizations against FMD, HS and BQ in cattle & buffaloes and swine fever in pigs may be carried out during monsoon season. Vaccination (RDF1) against Ranikhet disease in one week old chicks and against Gamboro disease in two weeks old chicks may be carried out.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rainfall occurred in all districts of Konkan & Goa, pune district of Madhya Maharashtra, Hingoli, Latur, Nanded districts of Marathwada, Chnadrapur, Gaadchiroli districts of Vidarbha, Dangs, Navsari, Valsad districts of Gujarat Region during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In South Konkan Coastal Zone, maintain water level of 5 cm by bunding rice field. Cleaning of bunds and proper drainage of water should be done. Drain out excess water from vegetables field wherever necessary. Apply second one third dose of urea @ 720 to 870 g per Are area (100 m) to vegetable crops after current spell of rain.
 - In Madhya Maharashtra, in view of expected rainfall at most/many places during next 5 days along with heavy to very heavy rain at isolated places with extremely heavy rain at isolated places on 20th and heavy to very heavy rain at isolated places on 19th August, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage to avoid water stagnation in the crop fields. In fallow lands of the district broad bed furrows should be prepared for rabi season as it will help in percolation of rain water. Spraying of insecticides and fungicides should be done considering the rainfall situation preferably when there is no

rainfall. Prepare field and undertake for planting of mid seasonal sugarcane. Before planting dip the stumps in solution of Diamethoate 30% concentrate @ 265 ml and Carbendanzim @ 100 g in 100 litres of water for 10 minutes. After this dip the stumps in liquid acetobactor @ 500 ml and phosphorous solubilising bacteria @ 1.25 kg per 100 litres of water for 30 minutes. In rice maintain 3-5 cm of water level at tillering stage in western parts of Pune.

- In Sub Montane Zone of Madhya Maharashtra, install 5 pheromone traps / ha to monitor leaf eating caterpillar in soybean. If 5-7 flies are observed, spray Cypermethrin @ 4 ml or Chlorpyrifos @ 20 ml per 10 litres of water after current spells of rain.
- In Marathwada, in view of expected rainfall at most/many places during next 4 days along with heavy to very heavy rain at isolated places on 19th and heavy at a few places with isolated heavy to very heavy on 20th August, provide adequate drainage to avoid water stagnation in the crop fields. Undertake drenching of 150 g Urea + 150 g Potash along with 30 g Copper Oxychloride in 10 litres of water to control wilt in cotton crop. Also open furrow of cotton crop, so that excess amount of water is drained out from the field.
- In Vidarbha, in view of expected rainfall at most/many places during next 5 days along with heavy to very heavy rain at isolated places on 18th and heavy at a few places with isolated heavy to very heavy on 19th August, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops like cotton, soyabean, red gram. Provide adequate drainage to avoid water stagnation in the crop fields. Maintain optimum water level in the rice field. In Central Vidarbha, undertake nursery sowing of kharif vegetables like chilli, tomato, brinjal etc.
- In Central Vidarbha, in cotton, for control of aphids/jassids undertake application of Azadirachtin 0.03% @ 30 ml or Acetameprid 20% SP @ 4 g or Thiamethoxam 25 wg @ 4 g per 10 litres of water after current spell of rain.
- In South Konkan Coastal Zone, the incidence of army worm may be observed in rice crop, spray 0.07 per cent Cypermethrin @ 3 ml/10 litres of water in the field after current spells of rain.

▪ **Gujarat:**

- As rainfall is likely to occur at many places over Gujarat Region on 21st and over Saurashtra & Kutch on 21st and 22nd with heavy rainfall at isolated places over Gujarat Region on 21st, over Saurashtra & Kutch on 22nd, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- In North Gujarat Zone, continue resowing of short duration crop like green gram, cluster bean as contingent crop where crops are damaged due to heavy rain/floods. Under optimum moisture condition, continue transplanting of fennel in main field, continue sowing of fodder sorghum (varieties: S-1049, GFS-4 and GFS-5).
- In Bhal and Coastal Zone, carryout sowing of castor and fodder sorghum (S-1049, GFS-4 and GFS-5 varieties) after spells of heavy rain.
- In South Gujarat Heavy Rainfall Zone, maintain optimum water level in transplanted rice. Continue sowing of cucurbits and nursery preparation for chilli and brinjal.
- In South Saurashtra Zone, for the control of pink bollworm in cotton, spray Deltamethrin @ 10 ml or Trizophos / 10 litres of water.
- Carry out hand weeding and intercultural operations in pearl millet in Middle Gujarat Zone and North Saurashtra Zone and in pigeon pea, rice crop in Middle Gujarat Zone after current spells of rain.
- Under present weather condition, infestation of thrips and aphids is observed in cotton in North Saurashtra Zone; spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 3 g or Dimethoate @ 10 ml in 10 litres of on a non rainy day. For monitoring of pink bollworm infestation in cotton crop use 6-8pheromone traps/ha.
- In South Gujarat Zone, for the control of semilooper in castor, spray Quinalphos 25 EC @ 15 ml/10 liters of water and for the control of Spodoptera in castor, spray Chlorpyrifos @ 20 ml/ 10 liters of water on a non rainy day.
- For prevention of leaf spot disease in groundnut in Middel Gujarat Zone, spray Hexaconazole @ 10 ml or Tebuconazole @ 7 ml /10 litres of water on a non rainy day.
- Heavy infestation of semilooper observed in castor in North Saurashtra Zone; spray Chlorpyro phos @ 30 ml in 10 liters of water for control on a non rainy day.

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

- **Realised Rainfall:** Rainfall occurred in South Andaman district of Andaman & Nicobar Islands, all districts of Gangetic West Bengal except East Midnapore, all districts of Sub-Himalayan West Bengal & Sikkim, all districts of Bihar except Buxar and Rohtas, all districts of Jharkhand except Chatra, Gumla, Khunti and West Singhbhum, all districts of Odisha except Bhadrak, Boudhgarh during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers very likely at most/many places during next 5 days along with heavy rain isolated places over south Odisha, Jharkhand and Sub Himalayan West Bengal & Sikkim on 18th and over Odisha from 19th, 21st & 22nd August, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in maize, pulses and vegetable fields to avoid water stagnation in the crop fields.

▪ **Odisha:**

- In Mid Central Table Land Zone, continue transplanting of rice. Repair the bunds and store sufficient water in the rice fields.
- In North Central Plateau Zone, continue sowing of sesamum, green gram black gram and cowpea. Grow high yielding varieties such as Sesamum: Prachi, Kalika, Kanak, Vinayaketc, Greengram: K-851, PDM-11, PDM-54, OUM-11-5, Blackgram: T-9, Pant U-11, Pant U-19, Pant U-30, and cowpea –Cowpea-,SEB-2, PusaBarsati, Use 8-10 kg/acre before sowing seeds are to be treated with 2 g Bavistin/kg seeds.
- In South Eastern Ghat Zone, continue direct sowing ragi (Suitable varieties are Divyasinha, Neelachal, Bhairavi,Shuvra, and Chilika) and continue transplanting of rice.
- In Western Undulating Zone, in the prevailing weather, sucking pests like aphids, jassids and white fly may infest cotton crop. At early infestation, spray neem oil 3ml/lit of water after current spells of rain.

▪ **Bihar:**

- In North East and North West Alluvial Zone of Bihar, in flood affected areas, drain out excess water from the standing crop fields.
- In South Bihar Alluvial Zone, undertake transplanting of brinjal, tomato, chilli, cauliflower and cabbage on raised beds where seedlings are ready. Prevailing weather is congenial for attack of leaf folder/stem borer in rice. Farmers are advised to monitor their fields regularly, if observed, then broadcasting of Cartap 4% granules @ 10 kg/acre is recommended. Also in maize fields, constant monitoring of stem borer should be done, if insect population is above ETL, spray Carbrayl @ 2 gm/ litre of water.
- In North East Alluvial Zone of Bihar, to control brinjal fruit & shoot borer or tomato fruit borer, apply Indoxacarb 15.8 EC @ 1ml/litre of water after current spells of rain.

▪ **Jharkhand:**

- In South Eastern Plateau Zone, undertake sowing of medium duration (150-180 days) Pigeon pea (UPAS 120), Horse gram (VLG 19 and Birsakulthi 1) and Niger (Birsaniger 1, 2 and 3 as well as Puh1) and in Central and Western Plateau Zone, continue sowing of urad and arhar after current spells of heavy rain.
- In Western Plateau Zone, in fallow uplands, undertake sowing of Kulthi or Niger after current spells of heavy rain. Select Improved varieties of kulthi like V.L.G.-19 or Birsa kulthi-1. In fallow uplands, continue sowing of Arhar (with short duration variety like UPAS-120). Before sowing, seeds must be treated with Rhizobium culture.
- In Western Plateau Zone, present weather is favourable for the attack of blast disease in rice, when symptoms appear, immediately spray the fungicide Beam @ 3 gram per 5 liter of water. The spraying of Beam also protects the crop against other fungal disease. Mix Sandovit or Tipol @ 5 ml. in 10 liter of the solution of insecticide/fungicide. Undertake plant protection methods after current spells of rain.

▪ **West Bengal:**

- In Hill Zone, care should be taken to avoid water stagnation at the base of the plants of mandarin orange. Maintain 5-6 cm of water in the rice fields. Drainage system should be maintained properly to remove excess water from rice fields. Provide adequate drainage in ginger fields.
- In the New Alluvial Zone, undertake first weeding in paddy at 3 weeks after transplanting and second weeding at 6 weeks after transplanting. Apply 4.5 kg Urea/bigha as 1st top dressing after 1st weeding and same amount after second weeding. Drain out stagnant water from the field before applying Urea. Carry out proper retting of jute after harvesting. Do not use mud or banana stem for retting purpose
- In Terai Zone, continue transplanting of seedlings of rice. Clip the tips of rice seedlings and dip roots of seedlings in 100 ppm Streptomycin solution for 15-20 minutes before transplanting.
- In Coastal Saline Zone, continue transplanting of Aman rice with old seedlings. Undertake re-sowing of short duration (115to 120 days) varieties like MTU1010, IET4786, IR36, Gotra Buchan 1 and 2, Rajendra Bhagaboti, etc., where crop is damaged fully by floods.
- In the Terai Zone, in case of leaf yellowing due to rotting of rhizomes in ginger and turmeric crops, apply (Carbendazim + Mancozeb) @ 2.5 gm/ litre of water after current spells of rain.

▪ **Andaman and Nicobar Islands:**

- In North, Middle and South Andaman, close the bunds in paddy fields and store the rain water. Continue planting of banana.

• **Animal Husbandry**

- In Bihar, do not allow animals to graze around waterlogged/swampy/wet land and deworm and vaccinate animals against infectious disease like, Anthrax and Galaghotu. Keep animal shelter floors dry .In Poultry, more chance of occurrence of fungal diseases in poultry birds because of high humidity, hence, lime should be mixed thoroughly in poultry litter.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Rainfall occurred in Anupur, Balaghat, Dindori and Mandla districts of East Madhya Pradesh, Gwalior district of West Madhya Pradesh, Bastar, Bijapur, Bilaspur, Gariaband, Janjgir, Jashpur, Kondagaon, Korba, Mahasamund, Mungeli, Sukma and Surguja districts of Chhattisgarh during the week and weather remained mainly dry

over rest of the region.

• **Advisories:**

▪ **Madhya Pradesh:**

- As rainfall likely at most/many places over Madhya Pradesh during next 5 days along with heavy rain at isolated places on 19th and 20th and over West Madhya Pradesh on 21st August, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- In Malwa Plateau Zone, undertake transplanting of onion, brinjal, tomato, chilli, cauliflower and cabbage on raised bed. Undertake nursery preparation of cauliflower for mid season (Oct-Nov.).
- In Jhabua Hill Zone, continue intercultural operations in maize, soybean and black gram after current spells of rain.
- In Gird Zone, due to cloudy weather there are chances of attack of fruit borer in brinjal and okra, spray Dimethoate @ 750ml per hectare dissolved in 500-600 litres of water on a after current spells of rain.
- In Central Narmada Valley Zone, due to cloudy weather, infestation of white fly may be seen in soybean crop, apply Thiomethoxam 25 WG @ 100 gram or Imidachlorpid 17.8 SL @ 200 ml per hectare after current spells of rain.

▪ **Chhattisgarh:**

- As rainfall likely at most/many places over Chhattisgarh during next 3 days along with heavy to very heavy rain at isolated places on 18th and heavy rain at isolated places on 19th and 20th August, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage to avoid water stagnation in the crop fields.
- In North Hill Zone, in fallow upland, farmers are advised to sow the crops like horsegram and niger.
- In Bastar Plateau Zone, maintain 5-7 cm water in rice fields for better growth and to suppress weeds. Continue nursery preparation for papaya and custard apple.
- In Chhattisgarh Plain Zone, in low rainfall regions (deficit rainfall), farmers should prepare the fields and go for sowing of post -kharif crops like niger and horsegram. Maintain 5cm water level in rice crop fields.

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

- **Realised Rainfall:** Rainfall occurred in Bandipore, Ganderbal, Kathua, Reasi, districts of Jammu & Kashmir, in all districts of Himachal Pradesh except Kinnaur, Kullu, Lahaul & Spiti, Shimla, Sirmaur, all districts of Uttarakhand except Almora, Bageshwar, Chamoi, Rudraprayag and Uttarkashi, in Gurdaspur, Nawashahar, Patiala, Ropar, districts of Punjab, in Chandigarh, Kathial districts of Haryana, in New Delhi, North Delhi, of Delhi, in Azamgarh, Bahairach, Ballia, Balrampur, Barabanki, Basti, Deoria, Farrukhabad, Fatehpur, Gonda, Gorakhpur, Kheri, Kushinagar, Maharajganj, Mau, Sahujimaharajnagar, Sant Kabir Nagar, Sant Ravidas Nagar, Shrawasti, Sidharthnagar, Sitapur districts of East Uttar Pradesh, in Bareilly, Bijnour, Jotiba Phule Nagar, Moradabad, Muzzaffarnagar, Pilibhit, Rampur districts of West Uttar Pradesh during the week and weather remained mainly dry/dry over rest of the region.

• **Advisories:**

▪ **Jammu & Kashmir:**

- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, maintain the water level in paddy fields. Keep the paddy fields weed free, so that less water will be needed.
- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, to control stem borer in paddy, apply Carbofuron 3G @ 20 kg/ha in standing water and do not drain or irrigate the field for 72 hrs after application and install pheromone traps (yellow stem borer luren) @ 20/hectare from 10 – 15 days of transplanting. Spray Trycyclazole @ 0.06 % or 1 ml in 1.5 liters of water at clear weather conditions to control blast disease in paddy. Spray Ridomil MZ and Mancozeb @ 2-2.5 gm/liter of water alternately at 10 days interval on clear weather conditions for the attack of early blight particularly in tomato and potato. To control red pumpkin beetle, apply Imidachlorpid 1 ml/3 liter of water or Dichlorvos 30 EC @ 2 ml/ liter of water on a non rainy day.

▪ **Himachal Pradesh:**

- In Mild Hills Sub-Humid Zone of Himachal Pradesh, in Kullu and Mandi districts, picking of stone fruits has already done, prepare the basins of the plant and apply FYM
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of leaf folder or stem borer in rice, for control broadcast Cartap 4% granules @ 10 kg/acre on a non rainy day.

▪ **Uttar Pradesh:**

- In Central Plain Zone of Uttar Pradesh, undertake weeding and thinning operation in kharif crops on a non rainy day and split application of nitrogen in standing crop's field.
- In Central Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of Khaira disease in paddy crop, for control broadcast Zinc Sulphate @ 25 kg or spray Zinc Sulphate @ 5 kg plus lime @ 2.5 kg in 800litres of water per hectare.
- In Central Plain Zone of Uttar Pradesh, there may be chances of attack of stem borer, leaf roller in maize, for control broadcast Phorate 10% G @ 20 Kg per hectare or Quinalfos 25 % EC @ 1.5 litres per hectare in 500 to 600 litres of water in clear weather.

▪ **Rajasthan:**

- In Jaisalmer and Bikaner districts of Arid Western Plain Zone, prevailing weather condition is congenial for attack of sucking pests as white fly, jassids and thrips in kharif pulses (mothbean, greengram) and cluster bean, for control spray of Imidachloprid 17.8 SL @ 3 ml per 10 litres of water or Thiamethoxam @ 3 gm per 10 litres of water on a non rainy day.
- In Dungarpur, Banswara and Pratapgarh districts of Southern Humid Plain Zone, farmers are advised to go for intercultural operations in paddy and cotton and application of urea after current spells of rain.
- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for attack of leaf and pod borer in sesame crop, for control spray Monocrotophos 36 WSC @ 1 litre/ha after current spells of rain.

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