



National Agromet Advisory Service Bulletin

Friday 4th August 2017
(For the period 4th to 9th August 2017)



Issued by
India Meteorological Department

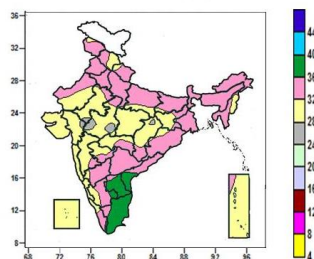
Weblink For

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

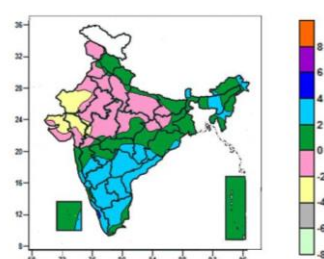
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 02.08.2017

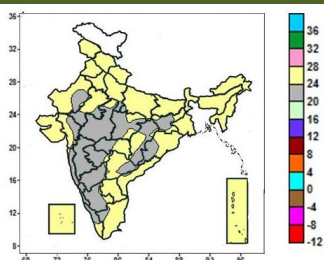
Actual Mean Maximum Temperature (°C) in India for the week ending 02.08.2017



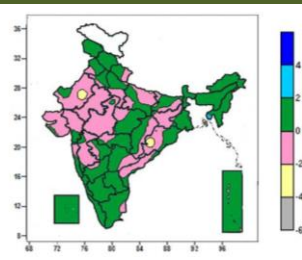
Mean Maximum Temperature (°C) Anomaly in India for the week ending 02.08.2017



Actual Mean Minimum Temperature (°C) in India for the week ending 02.08.2017

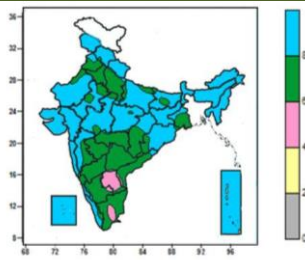


Mean Minimum Temperature (°C) Anomaly in India for the week ending 02.08.2017

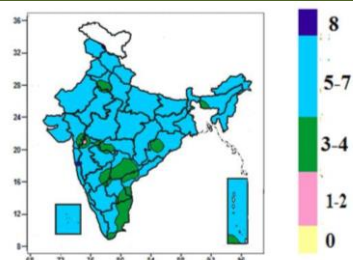


Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending 02.08.2017

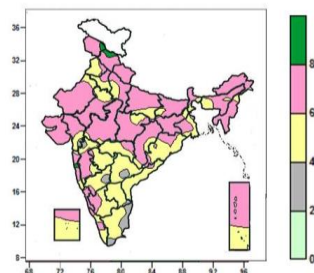
Relative Humidity (%) over India for the week ending 02.08.2017



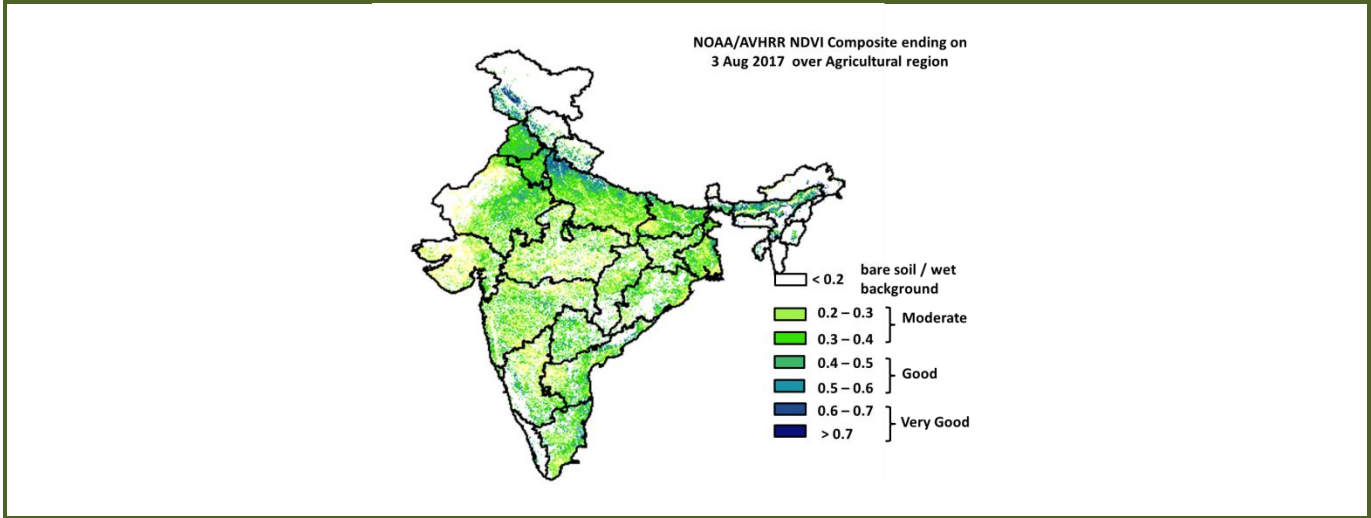
Cloud amount (okta) over India for the week ending 02.08.2017



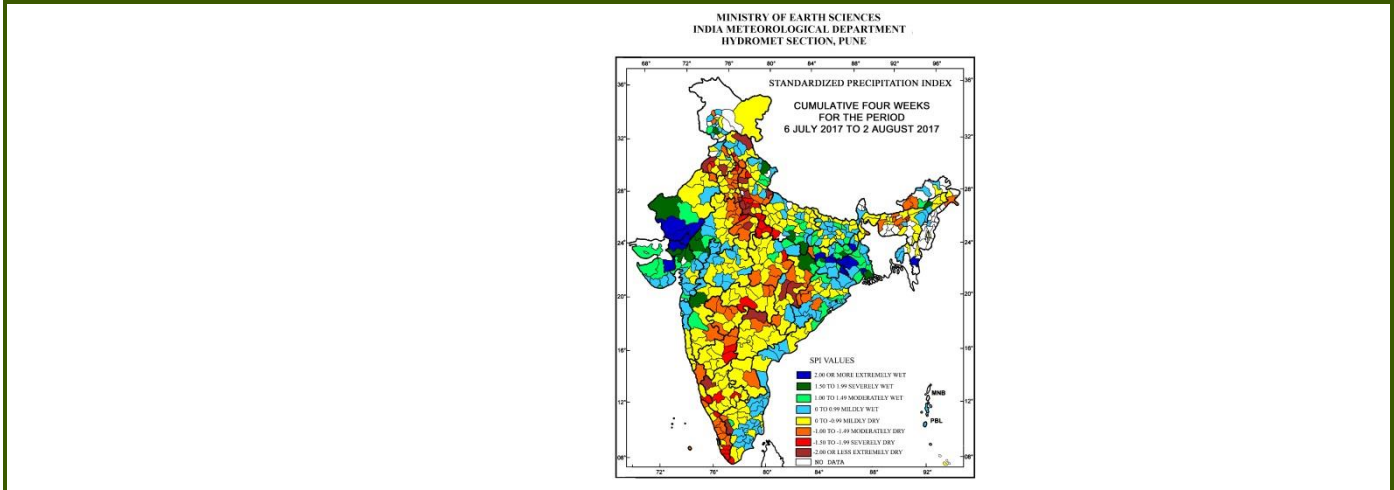
Wind speed (knots) over India for the week ending 02.08.2017



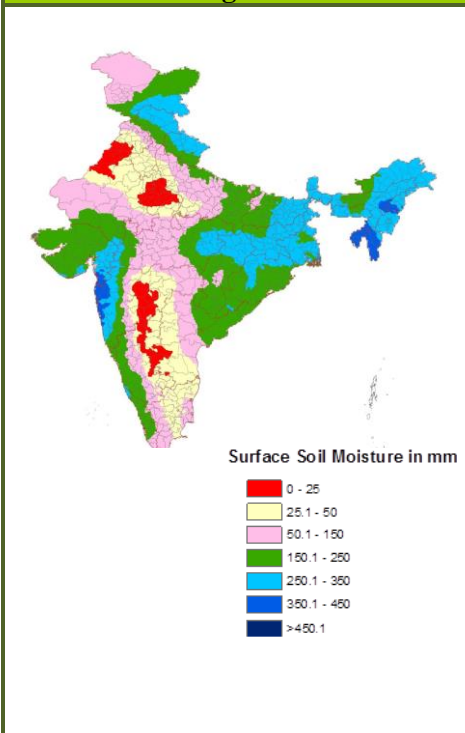
NOAA/AVHRR NDVI composite ending on 3rd August 2017 over Agricultural regions of India



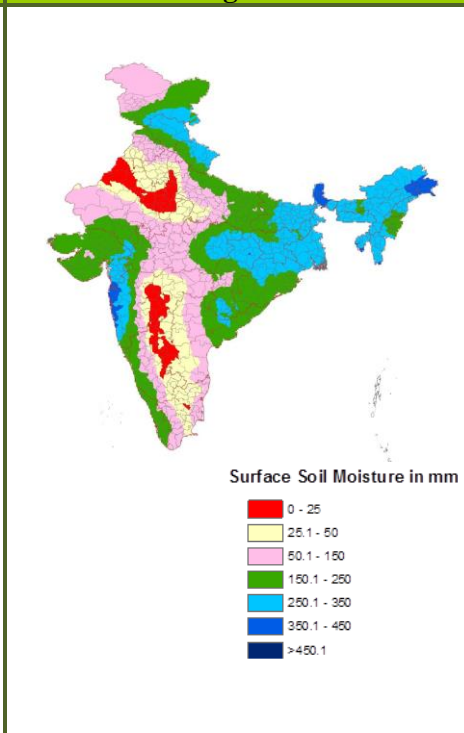
Standardised Precipitation Index
Four Weekly for the period 6th July to 2nd August 2017



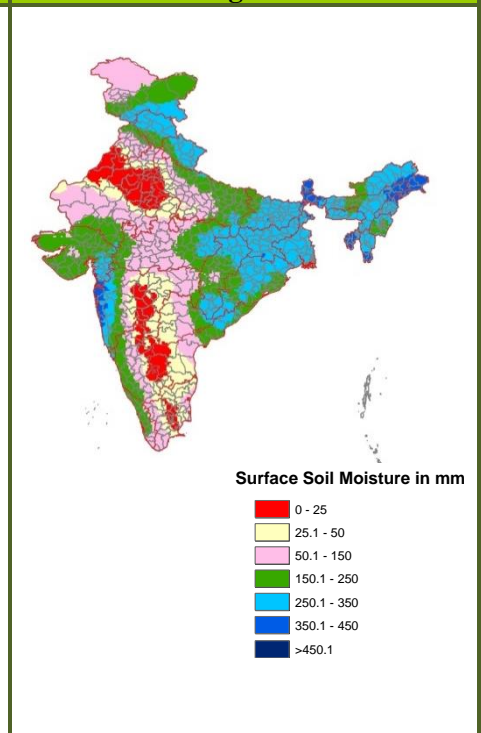
Daily Soil Moisture (mm) for
1st August 2017



Daily Soil Moisture (mm) for
2nd August 2017

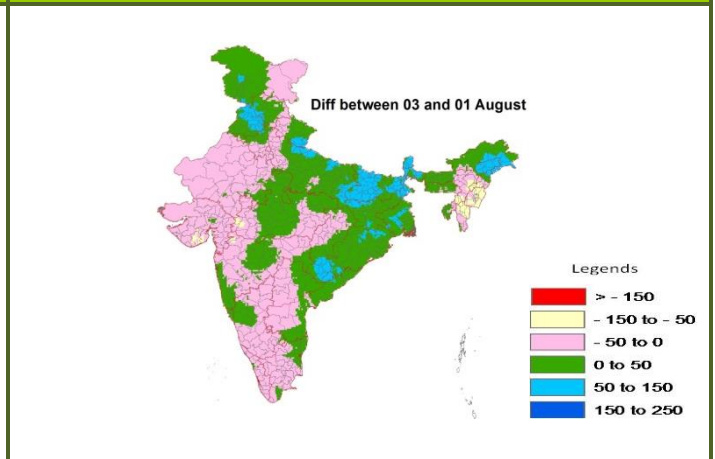
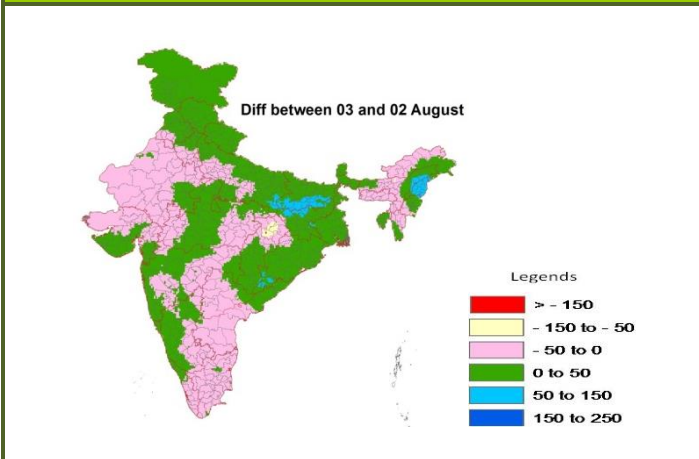


Daily Soil Moisture (mm) for
3rd August 2017



Difference of Soil Moisture (mm) between 3rd and 2nd August 2017

Difference of Soil Moisture (mm) between 3rd and 1st August 2017



Weather Forecast for next 5 days valid upto 0830 hours of 9th August 2017

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- No significant change in maximum temperatures over most parts of the country during next 2-3days.

**5Day Rainfall Forecast (Mid day)
4th August 2017**

Met-Sub-Division	04-Aug Today	05Aug Sat	06Aug Sun	07Aug Mon	08Aug Tue
1. Andaman & Nicobar Islands	FWS	WS	WS	WS	WS
2. Arunachal Pradesh	FWS	FWS	FWS	WS	WS
3. Assam & Meghalaya	FWS	FWS	WS	WS	WS
4. N. M. M. & T.	FWS	WS	WS	WS	WS
5. S.H. West Bengal & Sikkim	WS	WS	WS	WS	WS
6. Gangetic West Bengal	WS	WS	FWS	FWS	FWS
7. Odisha	FWS	WS	WS	FWS	FWS
8. Jharkhand	FWS	WS	WS	WS	WS
9. Bihar	WS	WS	WS	WS	WS
10. East Uttar Pradesh	FWS	FWS	FWS	WS	WS
11. West Uttar Pradesh	SCT	SCT	FWS	FWS	WS
12. Uttarakhand	WS	WS	WS	WS	WS
13. Haryana, Chd & Delhi	SCT	ISOL	SCT	FWS	FWS
14. Punjab	ISOL	ISOL	SCT	SCT	FWS
15. Himachal Pradesh	FWS	FWS	FWS	WS	WS
16. Jammu & Kashmir	SCT	ISOL	ISOL	SCT	FWS
17. West Rajsthan	DRY	DRY	DRY	ISOL	SCT
18. East Rajasthan	ISOL	ISOL	ISOL	SCT	FWS
19. West Madhya Pradesh	ISOL	ISOL	SCT	FWS	FWS
20. East Madhya Pradesh	SCT	SCT	FWS	WS	WS
21. Gujarat Region	ISOL	ISOL	ISOL	ISOL	SCT
22. Saurashtra & Kutch	ISOL	ISOL	ISOL	ISOL	ISOL
23. Konkan & Goa	WS	WS	WS	WS	WS
24. Madhya Maharashtra	SCT	SCT	SCT	SCT	FWS
25. Marathwada	ISOL	ISOL	ISOL	ISOL	SCT
26. Vidharbha	ISOL	ISOL	SCT	FWS	FWS
27. Chhattisgarh	SCT	FWS	WS	WS	WS
28. Coastal Andhra Pradesh	ISOL	SCT	SCT	FWS	FWS
29. Telangana	SCT	SCT	FWS	FWS	FWS
30. Rayalaseema	ISOL	ISOL	SCT	SCT	SCT
31. Tamilnadu & Puducherry	ISOL	ISOL	ISOL	SCT	SCT
32. Coastal Karnataka	WS	WS	WS	WS	WS
33. North Interior Karnataka	SCT	SCT	FWS	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

- **04 August (Day 1):** Heavy to very heavy rainfall very likely at isolated places over Bihar, Coastal Karnataka and South Interior Karnataka; heavy at isolated places over Uttarakhand, West Bengal & Sikkim, north Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa and Kerala.

- **05 August (Day 2):** Heavy to very heavy rainfall very likely at isolated places over Coastal Karnataka; heavy at isolated places over Uttarakhand, Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, South Interior Karnataka, Kerala and Lakshadweep.
- **06 August (Day 3):** Heavy to very heavy rainfall very likely at isolated places over Nagaland, Manipur, Mizoram & Tripura; heavy at isolated places over East Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Coastal Karnataka, South Interior Karnataka, Kerala and Lakshadweep.
- **07 August (Day 4):** Heavy to very heavy rainfall very likely at isolated places over East Madhya Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; heavy at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Chhattisgarh, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Coastal Karnataka.
- **08 August (Day 5):** Heavy to very heavy rainfall very likely at isolated places over East Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya; heavy at isolated places over Himachal Pradesh, Uttarakhand, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Bihar, Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka.

Weather Outlook for subsequent 2 days from 9th to 11th August 2017

- Rain very likely at most places over east and northeast India .
- Rainfall very likely at many places over northwest India and along west coast.
- Isolated to scattered rainfall very likely over rest parts of the country.

Salient Advisories

- In the Scarce Rainfall Zone of **Royalaseema**, as the cut-off date for sowing of groundnut is 31st July and there will be considerable reduction in yield under delayed sowings during August month, farmers are advised to follow the contingency crops as suggested below from the first week of August:
 - Contingent crop suitable for sowing in red soils for the Month of August: jowar, greengram, bajra, cowpea, redgram (up to 15th August), horsegram, castor, cluster bean.
 - Contingent crop suitable for sowing in black soils for the Month of August: jowar, foxtail millet, greengram, redgram, castor, cotton (August 15th) and cluster bean.
- In Chittoor and Kadapa districts of the Southern Zone of **Andhra Pradesh**, farmers are advised to take up contingent crops like red gram, castor, bajra, field bean, cowpea, *korra* and cluster bean in the month of August after receiving sufficient rains. Farmers who have taken up groundnut sowings in the month of June are advised to provide one irrigation with sprinklers or rain guns wherever there is possibility as the crop is wilting due to moisture stress. Spray 2% 19:19:19 or KNO₃ solution on the crop.
- In Upper Brahmaputra Valley Zone of **Assam**, in flood affected areas farmers are advised to select local varieties like Monoharsali, Andreusali, Prasadbhogetc. for raising seedlings. The seeds of these varieties can be sown in the nursery beds up to 1st week of August. Nursery raising of photo insensitive short duration variety like Luit, Kopilee and Culture-1 for where the rice crop was totally damaged. The tender seedlings of these varieties can be transplanted in the main field during 1st week of September. Continue transplanting of sali rice seedlings in flood unaffected areas. Undertake land preparation for sowing of green gram and black gram
- In **Gujarat**, in North Gujarat Zone, drain out excess water from standing crop fields. Under optimum moisture condition, continue transplanting of seedlings of fennel in main field, continue transplanting/sowing of vegetable crops viz. chilli, brinjal, bhindi, cluster bean and cowpea, sowing of castor; undertake sowing of fodder sorghum (varieties: S-1049, GFS-4 and GFS-5) at vasma condition. Undertake intercultural operation in pearl millet, sesame, maize and pulses at vasma condition. Carry out gap filling in late sown pulses.

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

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala except Kollam, Malappuram, Palakkad and Thiruvananthapuram, all districts of Coastal Karnataka, Kodagu and Shivamogga districts of South Interior Karnataka, Ariyalur, Dharmapuri, Dindigul, Kancheepuram, Karur, Krishnagiri, Madurai, Nammakal, Perambalur, Puducherry, Pudukkottai, Salem, Sivaganga, Thanjavur, Tiruppur, Tiruvannamalai, Tiruvarur, Trichy, Vellore, Villupuram and Virudhunagar districts of Tamil Nadu, Guntur, Krishna, Nellore, Srikakulam and West Godavari districts of Coastal Andhra Pradesh, Chittoor district of Rayalaseema 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. In Kollam district, avoid water logging in the pit and ensure proper drainage in coconut fields.
 - In the Central Zone, due to change in weather, there is chance of sigatoka disease in banana. As a precaution, spray Pseudomonas @ 20g/litre of water. In case of severe attack, spray Bavistin mixed with gum @ 1g/ litre of water on the lower surface of the leaf 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 after current spells of rain. Ensure drainage in nutmeg and pepper fields.
 - In the Southern Zone, prevailing weather conditions may favour the attack of rice bug in rice (panicle initiation stage). If the bugs are seen in large numbers, apply Fish amino acid @ 20ml/litre of water either before 9am or after 3pm in an encircling manner from outer to inner side after current spells of rain.
 - In the Northern Zone, prevailing high relative humidity and overcast sky will cause increase in incidence and spread of fungal diseases on the standing crops. Undertake plant protection measures.
 - **Karnataka:**
 - As rainfall is very likely at most places over Coastal Karnataka and at many places over South Interior Karnataka during the period, along with heavy to very heavy rain at isolated places over Coastal Karnataka on 4th and 5th 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 Coastal Karnataka.
 - In the Southern Dry Zone, continue sowing of short duration varieties of ragi (GPU-28, GPU-48, Indaf-9, Indaf-5, KMR-204 and KMR-301) with receipt of sufficient rainfall.
 - In Southern Transition Zone, continue transplanting of rice and nursery sowing of ragi crop.
 - In Eastern Dry Zone, wherever over population of plants exist, undertake thinning operation for better availability of scarce soil moisture to the reduced population of crop plants. If Wilt diseases noticed in field, spray Carbendazim 50 WP @ 2 g/litre of water. Undertake plant protection measures after current spells of rain. Postpone sowing of crops till soaking/sufficient rainfall is received. Medium to short duration crops are recommended.
 - In Southern Transition Zone, as a precautionary measure, spray Carbendazim + Mancozeb (SAAF) @ 2.0 g / litre of water followed by (15 days after) Chlorothalanyl @ 2.0 g/ litre of water to avoid sigatoka /leaf spot disease in banana 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.
 - In the Scarce Rainfall Zone of Rayalaseema, as the cut-off date for sowing of groundnut is 31st July and there will be considerable reduction in yield under delayed sowings during August month, farmers are advised to follow the contingency crops as suggested below from the first week of August:
 - Contingent crop suitable for sowing in red soils for the Month of August: jowar, greengram, bajra, cowpea, redgram (up to 15th August), horsegram, castor, cluster bean.
 - Contingent crop suitable for sowing in black soils for the Month of August: jowar, foxtail millet, greengram, redgram, castor, cotton (August 15th) and cluster bean.
 - In Chittoor and Kadapa districts of the Southern Zone, farmers are advised to take up contingent crops like red gram, castor, bajra, field bean, cowpea, korra and cluster bean in the month of August after receiving sufficient rains. Farmers who have taken up groundnut sowings in the month of June are advised to provide one irrigation with sprinklers or rain guns wherever there is possibility as the crop is wilting due to moisture stress. Spray 2% 19:19:19 or KNO₃ solution on the crop.
 - In the Krishna Godavari Zone, incidences of yellow mosaic virus and sucking pests may appear on pulses due to present dry weather. To manage adopt cultural practices i.e., remove infected plants in the beginning and spray Monochrotophos @ 1.6 ml/litre of water based on the intensity of the sucking pests.

▪ **Telangana:**

➤ In South Telangana Zone, to conserve soil moisture in crop fields and control weeds, frequent inter cultivation in rainfed crops like redgram, castor, soybean, cotton, maize etc. may be undertaken.

▪ **Tamil Nadu:**

➤ In the Cauvery Delta Zone, continue preparing the land for samba rice cultivation.

➤ In the North Western Zone, take up weeding and earthing-up in groundnut field and also prepare lands for sowing of millets and pulses.

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

• **Realised Rainfall:** Rainfall occurred in Changlang, East Kameng, East Siang, Lower Dibang Valley, Papumpara, Tirap, Upper Siang and West Siang districts of Arunachal Pradesh, Barpeta, Bongaigaon, Cachar, Chirang, Dhemaji, Dhubri, Dibrugarh, Goalpara, Golghat, Hailakandi, Jorhat, KarbiAnglong, Karimganj, Kokrajhar, Lakhimpur, N.C.Hills, Nowgaon, Sonitpur, Sibsagar, Tinsukia and Udalgiri districts of Assam, East Garo Hills, East Khasi Hills, Ri-Bhoi and West Garo Hills districts of Meghalaya, Aizwal, Lunglei and Serchip districts of Mizoram, Imphal West district of Manipur, Dimapur, Kohima and Phek districts of Nagaland and all districts of Tripura during the week and weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Assam & Meghalaya, Arunachal Pradesh:**

➤ As rainfall is very likely at most/many places over Assam during the period, along with heavy rain at isolated places, 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 Hill Zone of Assam, continue transplanting of rice seedling in the main field. Continue land preparation and sowing of sesame and arhar. Also continue nursery raising for early cauliflower and cucurbits.

➤ In Barak Valley Zone of Assam, complete transplanting of Sali rice. Keep some seedlings for gap filling.

➤ In Lower Bramhaputra Valley Zone of Assam, continue transplanting of Sali rice.

➤ In Upper Bramhaputra Valley Zone of Assam, in flood affected areas farmers are advised to select local varieties like Monoharsali, Andreusali, Prasadbhogetc. for raising seedlings. The seeds of these varieties can be sown in the nursery beds up to 1st week of August. Nursery raising of photo insensitive short duration variety like Luit, Kopilee and Culture-1 for where the rice crop was totally damaged. The tender seedlings of these varieties can be transplanted in the main field during 1st week of September. Continue transplanting of sali rice seedlings in flood unaffected areas. Undertake land preparation for sowing of green gram and black gram. Complete sowing of sesame and nursery raising of cauliflower at end of August.

➤ In Hill Zone of Assam, the present weather condition is favourable for infestation of fruit scaring beetle in banana. To control, spray 0.1% Malathion 50 EC on the bunches immediately after emergence or application of 0.05% Monocrotophos @ 30ml/plant. Undertake plant protection measures after current spells of rain.

➤ In Barak Valley Zone of Assam, to control the stem borer, gall midge and hoper pests in the rice field uprooted seedlings should be washed properly and then dipped into 0.02% solution of Chloropyriphos along with 1% urea before transplanting in the main field. Undertake plant protection measures after current spells of rain.

▪ **Nagaland, Mizoram, Manipur and Tripura:**

➤ As rainfall is very likely at most/many places over Assam during the period, along with heavy rain at isolated places, 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.

➤ Continue transplanting of TRC/WRC rice in Dimapur, Kephire, Kohima, Longleng, Mokokchung, Mon, Paren, Phek, Tuensang, Wokha and Zunheboto districts of Nagaland. Maintain proper drainage to manage soil borne root diseases in green gram field. Provide drainage facility and undertake earthing-up in maize to avoid lodging and to save the crop.

➤ In Manipur, complete transplanting before 15th August if seedlings are available. To have more tillers, avoid excess water in the field. Maintain a thin film of water upto 7 days after transplanting. Avoid water logging in the maize crop field. Avoid sowing of black gram and rice bean in water logged fields.

➤ In Mizoram, continue transplanting of *kharif* rice.

➤ In Manipur, spray Chlorantraliniprol 23.5% @ 40 ml/ha against stem borer attack in rice.

➤ In Tripura, continue sowing of *kharif* vegetables.

➤ In Tripura, there is chance of attack of yellow stem borer in Aman rice due to substantial decrease in sunshine hours with occasional rain. To manage the attacks spray Trizophos 40 EC 1 ml per litre of water.

➤ In Mizoram, due to high humidity, probability of shoot borer infestation will be high in ginger and turmeric. Apply insecticide like Imidacloprid 0.5 ml or Phosolone 1.5 ml or Acephate 1.0 g or Dimethoate 2 ml/litre of water. Undertake plant protection measures after current spells of rain.

• **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, all districts of Madhya Maharashtra except Ahmednagar, Sangli, Satara and Solapur, all districts of Gujarat Region, all districts of Saurashtra & Kutch except Devbhumi, Dwarka, Jamnagar, Kutch, Porbandar during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - In North Konkan Coastal Zone, apply 2nd dose of Urea @87 kg/ha to a 30 days old transplanted rice crop. Remove water from the field at the time of fertilizer application.
 - In Madhya Maharashtra, keep the field weed free. Undertake sowing of castor around soybean crop.
 - In East Vidarbha, undertake transplanting of rice of 22 to 25 days age. Transplanting of rice may be carried out with a spacing of 20 x 15 cm with placement of seedling 2.5 to 3.5 cm. deep. Maintain optimum water level in the rice field. Apply top dressing of fertilizers (30 DAS) in early sown cotton, after carrying out weeding and hoeing operations. Undertake sowing of red gram after seed treatment in fallow lands.
 - In North Konkan Coastal Zone, there is a possibility for incidence of blue beetle in rice. If it is noticed, spray Quinalphos 25% EC @ 2 litres or Triazophos 40% EC @ 625 ml or lambda-cyhalothrin 5% EC @ 250 ml in 500 lit. of water per hectare after current spells of rain.
 - In Madhya Maharashtra, spray sugarcane crop with 36 WSC Monocrotophos @ 15 ml per 10 litres of water for the control of mealy bugs seen in shoot. To control shoot fly and stem borer on bajra, spray the crop with 50 EC Melathion @ 14 ml per 10 litres of water. To control sucking pests on green gram and hairy caterpillar on black gram, spray 25 EC Quinalphos @ 20 ml per 10 litres of water. To control stem fly on soybean, spray 40 EC Triazophos @ 12 ml per 10 liters of water. If infestation of semi looper is observed in soybean. Spray 5 SC Fipronil @ 12 ml or 25 WG Thiamethoxam @ 2 gm per 10 liters of water for the control of thrips on cotton.
 - **Gujarat:**
 - In North Gujarat Zone, drain out excess water from standing crop fields. Under optimum moisture condition, continue transplanting of seedling of fennel in main field, continue transplanting/sowing of vegetable crops viz. chilli, brinjal, bhindi, cluster bean and cowpea, sowing of castor; undertake sowing of fodder sorghum (varieties: S-1049, GFS-4 and GFS-5) at vasma condition and planting of saplings in new orchard. Undertake intercultural operation in pearl millet, sesame, maize and pulses at vasma condition. Carry out gap filling in late sown pulses.
 - In North Saurashtra Zone, continue transplanting of brinjal, chilli and early cauliflower. Carry out intercultural operations in standing crops for aeration and removal of weeds. If growth of cotton and groundnut crops suppressed due to continuous and heavy rainfall and cloudy weather, apply 20-30 kg/ha Ammonium Sulphate & muriate of Potash fertilizers to cotton as per crop growth and 30 kg/ha Ammonium Sulphate to groundnut crop. Apply 30 kg/ha Ammonium Sulphate in sesame.
 - In South Saurashtra Zone, undertake intercultural operations in groundnut, sugarcane and vegetable crops.
 - In North West Zone of Gujarat, continue sowing of castor. Carry out intercultural operation in cotton, pearl millet, sesame and pulses at optimum soil moisture condition. Carry out transplanting/sowing of vegetable crops viz. chilli, brinjal, bhindi, cluster bean and cowpea under sufficient moisture condition.
 - In South Gujarat Zone, complete sowing of castor by 15th August to avoid semilooper incidence in castor.
 - In South Gujarat Heavy Rainfall Zone, drain out excess water from standing crop fields. Maintain optimum water level in transplanted rice. Continue sowing of cucurbits and prepare nursery for chilli and brinjal. Adopt vibration technique to ensure better fruit set in tomato.
 - In present weather conditions severe attack of thrips in chilli has been reported in North Saurashtra Zone; spray Profenofos @ 20 ml /10 litres of water for control.
- **Animal Husbandry**
 - In Gujarat, keep animals indoors and keep fodder in safe place to avoid spoilage due to rainfall. Vaccinate animals against different diseases. Make arrangement for artificial light in poultry to maintain egg production.

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

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands, all districts of Gangetic West Bengal except Howrah and West Midnapore, all districts of Sub-Himalayan West Bengal & Sikkim except Malda and South Dinajpur, all districts of Bihar except Arwal, Bhojpur, Gopalganj, Muzaffarpur, Nalanda, Nawada, Rohtas, Saran, Sheikhpur, Sheohar, Siwan and Vaishali, all districts of Jharkhand except Chatra, East Singhbhum, Hazaribag, Koderma, Sahibganj and West Singhbhum, all districts of Odisha except Bargarh, Bhadrak, Dhenkanal, Gajapati, Jagatsingpur, Keonjhar, Koraput, Nawapara, Puri and Rayagada during the week.

- **Advisories:**

- **Odisha:**

- In South Eastern Ghat Zone, undertake direct sowing ragi (Suitable varieties are Divyasinha, Neelachal, Bhairavi, Shuvra, and Chilika) and continue transplanting of rice.
- In North Central Plateau Zone, undertake beushaning in 25 days old direct Seeded Kharif Rice and apply 35 kg urea per acre after beushaning. Continue transplanting of rice with 20-25 days old seedlings in prepared fields. Problem of weeds may aggravate after transplanting due to deficient rainfall during last few days. Apply 4 kg Bensulfuron methyl 0.6% + Pretilachlor 6% GR per acre with sand mix (12 kg) within 3 - 7 days after transplanting for controlling weeds.
- In North Central Plateau Zone, due to high humidity, infestation of blight and sucking pests in vegetable crops are likely to increase; farmers are advised to monitor the fields regularly. If observed, spray Mancozeb 75% WP @ 2 g/litre of water for blight and Imidacloprid 17.8% SL @ 0.25ml/litre of water for sucking pests.

- **Andaman and Nicobar Islands:**

- In North, Middle and South Andaman, undertake transplanting of rice after proper land levelling and clip top of the seedlings to avoid stem borer attack. Close the bunds in paddy fields and store the rain water. Do hand weeding and earthing up in vegetables and apply vermicompost @ 5 tones/ha.

- **Bihar:**

- As rainfall is very likely at most places during the period along with heavy to very heavy rain at isolated places on 4th August, postpone 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.
- 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 for effective control after current spells of rain.
- 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 Central and Western Plateau Zone, complete transplanting of rice by middle August and continue sowing of urad and arhar.
- In Western Plateau Zone, undertake inter-culture operation to control weeds in different kharif crops like rice, urd, groundnut, arhar, maize, mung etc. After weeding, broadcast urea as per their requirement. In fallow uplands, farmers may sow Arhar (with short duration variety like UPAS-120), Kulthi or Niger.
- In South Eastern Plateau Zone, in fallow upland, 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 Puha 1). In Groundnut, weather is conducive for the occurrence of pests like hairy caterpillar. So, in early stage of caterpillar, apply Dichlorvos @ 0.5 ml per liter of water. For control of adult caterpillar, provide bamboo perch for predatory birds in the fields.
- In Central and North Eastern Plateau Zone, due to high humidity and cloudy weather, there may be attack of tikka disease in groundnut, for control, apply Kavach @ 2gm or endofile M-45(4gm) + Bavistin 1gm in 4 liter of water in clear sky.

- **Animal Husbandry**

- In the Old Alluvial Zone of West Bengal, make adequate arrangements to protect the animals from slush and floods. In the Coastal Zone, monitor for Foot and mouth disease in livestock, wash the wounds with Potassium permanganate solution. Avoid grazing in a submerged field. In poultry sheds, apply lime to prevent fungal attack and use old news papers to avoid damp conditions in litter. Rearrange the litter if possible.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Rainfall occurred in all districts of East Madhya Pradesh except Balaghat, Chhindwara, Dindori, Seoni, and Tikamgarh, all districts of West Madhya Pradesh except Bhind, Datia, Gwalior, Morena, Sheopur and Shivpuri, in Balampur, Bemetara, Bijapur, Janjgir, Jashpur, Kabirdham, Kanker, Kondagaon, Korba, Koriya, Raigarh, Sukma, Surajpur and Surguja districts of Chhattisgarh during the week and weather remained mainly dry over rest of the region.

- **Advisories:**

- **Madhya Pradesh:**

- In Malwa Plateau Zone, undertake intercultural operations in soybean and maize after current spells of rain.
- In Vindhya Plateau Zone, continue transplanting of rice.
- In Central Narmada Valley Zone, due to cloudy weather the infestation of broad leaf weeds are seen in rice, apply Pyrazosulphuron @ 200 gram/hectare 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 after current spells of rain.

▪ **Chhattisgarh:**

- In North Hill Zone, complete transplanting of rice, maintain 5cm water in transplanted rice fields. Undertake inter-culture operation to control weeds in different *kharif* crops like rice, urad, groundnut, arhar, maize, moong etc. After weeding, broadcast urea as per their requirement after current spells of rain. In the pockets where the sowing of rice crop has not taken place, early duration moong crop varieties *viz.* Pusa Vishal and HUM-1 and urad varieties like TU 94-2, TAU-2, KU 96-3, Indira Urad-1 should be sown.

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

- **Realised Rainfall:** Rainfall occurred in Bandipore, Baramula, Ganderbal, Jammu, Kathua, Rajouri, Reasi, Samba districts of Jammu & Kashmir, all districts of Himachal Pradesh except Lahaul&Spiti, all districts of Uttarakhand, all districts of Punjab except Barnala, Faridkot, Ferozpur, Muktesar, TaranTaran, in Chandigarh, Jhajar, Jind, Kathial, Karnal, Kurukshetra, Mahendragarh, Rewari, Sonapat, Yamunanagar, Hissar, Sonapat districts of Haryana, South West Delhi district of Delhi, Allahabad, Ambedkarnagar, Azamgarh, Bahairach, Chandauli, Kheri, Mau, Mirzapur, Shrawasti, Sidharthnagar, Sonbhadra, Varanasi districts of East Uttar Pradesh, Baghpat, Bareilly, Bijnour, Etah, Firozabad, Lalitpur, Moradabad, Rampur, Saharanpur, Shahjahanpur districts of West Uttar Pradesh, all districts of East Rajasthan except Bharatpur, Bundi, Dholpur, Karauli, SawaiMadhopur, Tonk, all districts of West Rajasthan except Bikaner, Hanumangarh, Nagaur, Sriganganagar during the week and weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Jammu & Kashmir:**

- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, carry out earthing up in late sown maize crop. Undertake intercultural operations (thinning, weeding, hoeing) at vattar condition in Kharif pulses crops. Drain excess water from turmeric and vegetable fields.
- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, undertake second hoeing/weeding where the paddy crop is at 30 - 35 days after transplanting. Apply first top dressing of urea where the paddy crop is at mid – tillering stage. Provide proper drainage in the maize, vegetables and pulses field.
- 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 Tricyclazole @ 0.06 % or 1 ml in 1.5 liters of water at clear weather conditions to control blast disease in paddy. To control red pumpkin beetle, apply Imidachloprid 1 ml/3 liter of water or Dichlorvos 30 EC @ 2 ml/ liter of water on a non rainy day.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, apply 2-3 sprays of mancozeb @ 0.25% at 15 days interval to control attack of brown spot in paddy crop. Spray mancozeb @ 0.25% for stalk rot in maize crop. Spray Chlorpyrifos/Profenofos @ 1ml/litre of water to control beetle attack in okra on a non rainy day.

▪ **Uttarakhand:**

- In Udham Singh district of Bhabar and Tarai Zone, late sowing of Maize with varieties like Kanchan, Gaurav, Saurya, Prakash, etc., in the first week of August. Urd and Moong should be sown in this week in the regions which are free from water logging. For sowing, variety of Urd like Urd 19, Pant Urd 35, PantUrd 31 and for Moong, Pant Moong 4, Pant Moong 5 should be selected. Sowing of cereal crops should be done after treating the seeds with bio-agent trichoderma @ 6-10g/Kg of seed.
- In Bhabar and Tarai Zone, on the occurrence of stem Borer and Leaf folder in paddy, spray Chlorantraniliprole 0.4 G @ 10000g/ha or Fipronil 0.3 GR @ 25000g/ha or Kartap 4 GR @ 18750 g/ha within 50 days of transplanting. Apply Carbofuran 3CG @ 33kg /ha in the soil at the time of sowing to control stem borer in maize crop. Apply Chlorpyrifos 20 EC @ 2liter/Ha or Phenthoate 50 EC @ 1 liter/ha or 2 liter of Quinalphos 25 EC in 500 liter of water for black bug in sugarcane crop after current spells of rain.

▪ **Delhi:**

- In Delhi, keeping in view of rainfall, farmers are advised to conserve rain water in the paddy fields by making broad and elevated bunds. In other crops (Maize, Pulses, Vegetables) water logging should be avoided by providing proper drainage in the fields. Farmers are advised for sowing of short duration varieties of Urd and moong. Transplanting of brinjal, tomato, chilli, cauliflower and cabbage are advised on raised bed for those farmers whose seedlings are ready. Transplant onion seedling in the prepared fields. This is suitable time for sowing of sarsonsaag- Pusa saag-1; Radish- Versa kee rani, summer long, long chetaki; Spinach- All green. Undertake weeding and hoeing in standing kharif crops and vegetables. After that split dose of nitrogen should be broadcasted for optimum growth.
- Apply Cartap 4% granules @ 10 kg/acre for effective control of leaf folder or stem borer in paddy crop. In the present weather, constant monitoring of sugarcane against shoot borers should be done. If population of borer is above ETL, then broadcasting of Carbofuran 3% G @ 10 kg/ acre is recommended after current spells of rain.

- **Uttar Pradesh:**

- In Central Plain Zone of Uttar Pradesh, complete sowing of jowar, bajra, sesame, arhar and rainy season vegetables. Complete earthing up operation in groundnut crop after 35-40 days of sowing. Undertake intercultural operation and ensure no water lodging in brinjal, chilly, bhindi etc on a non rainy day. Complete intercultural and hoeing operation in sunflower crop after sowing of 40-45 days. Undertake nursery sowing of capsicum, chilli, cauliflower.

- **Rajasthan:**

- In Sub Humid Southern Plain and Aravali Hill Zone, in Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts, undertake weeding and hoeing operation in cotton and groundnut crops. Those farmers have 20-30 days of maize they should be broadcast 40 kg Nitrogen/hectare broadcasting through urea in standing maize crop. In clear sky undertake weeding and hoeing operation in maize, moongbean and urdbean, and ridges should be prepared on maize plants.

- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, undertake weeding and thinning operation in timely sown sorghum, pearl millet, sesame, groundnut crops on a non rainy day. In Jaisalmer and Bikaner districts of Arid Western Plain Zone, in unsown areas, farmers are advised to select cluster bean and moth bean instead of pearl millet crops for late sowing.

- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, after transplanting apply irrigation in paddy crop as per requirement. Undertake hoeing and weeding operation in groundnut crop and apply second irrigation as per requirement.

- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for attack of mosaic virus in bhindi crop, for control spray Malathion 50 EC @ 1.0 ml per litre of water on a non rainy day.

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