



National Agromet Advisory Service Bulletin

Friday 7th September 2018
(For the period 7th to 12th September 2018)



Issued by
India Meteorological Department

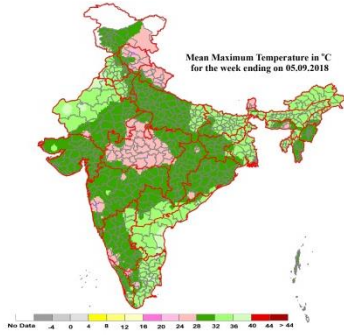
Weblink For

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

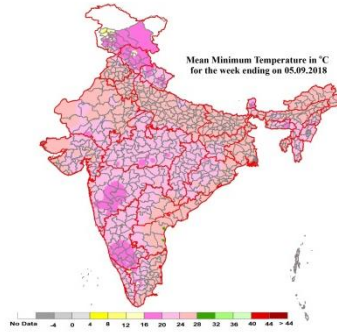
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Spatial distribution of weather parameters for the week ending on 05.09.2018

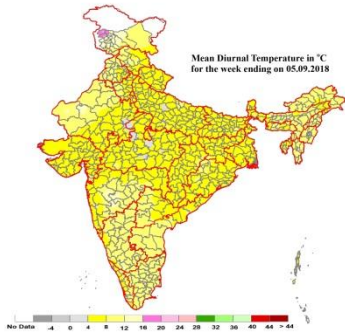
Mean Maximum Temperature (°C) for the week ending on 05.09.2018



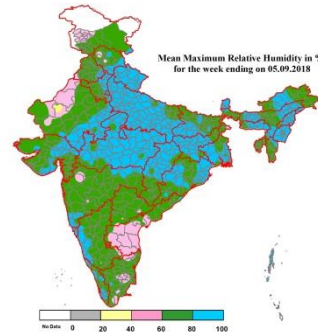
Mean Minimum Temperature (°C) for the week ending on 05.09.2018



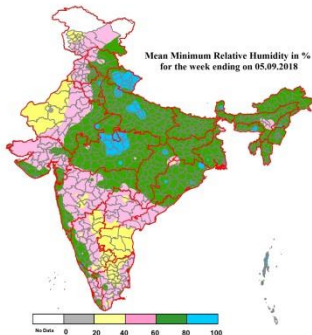
Mean Diurnal Temperature Variation (°C) for the week ending on 05.09.2018



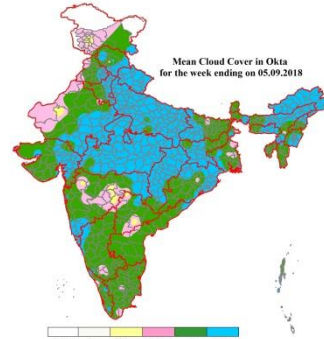
Mean Maximum Relative Humidity (%) for the week ending on 05.09.2018



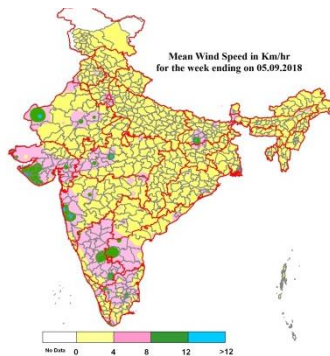
Mean Minimum Relative Humidity (%) for the week ending on 05.09.2018



Mean Cloud Cover (okta) for the week ending on 05.09.2018

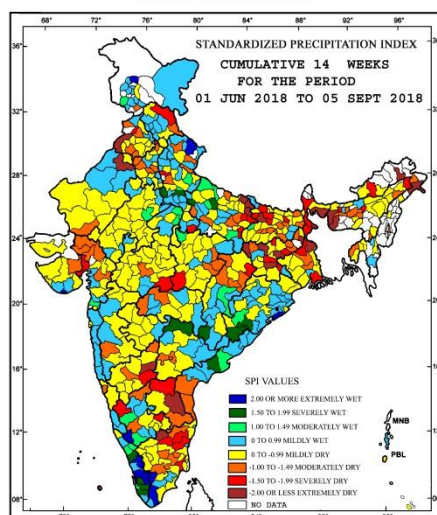


Mean Wind Speed (km/hr) for the week ending on 05.09.2018



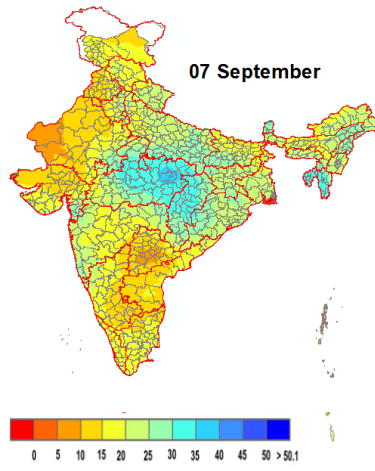
Standardised Precipitation Index Cumulative 14 weeks for the period 1st June to 5th September 2018

MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE

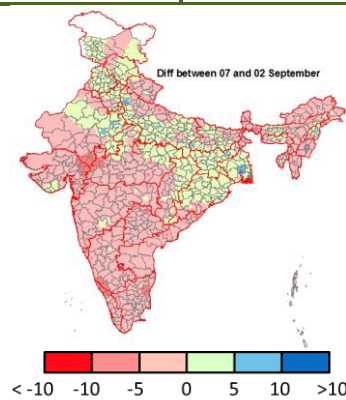
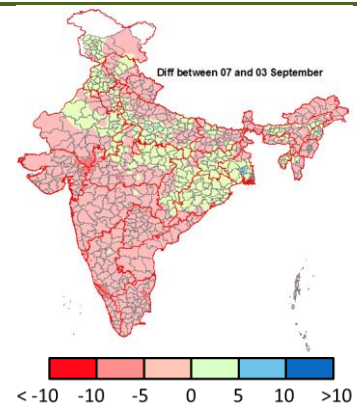
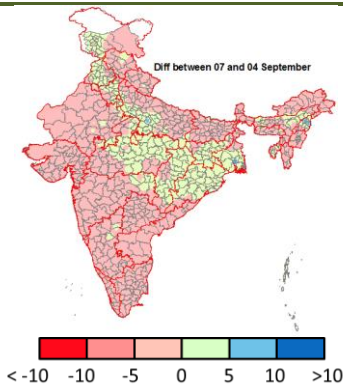
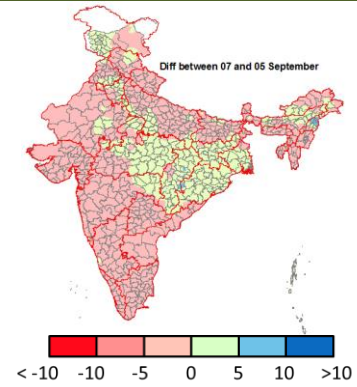
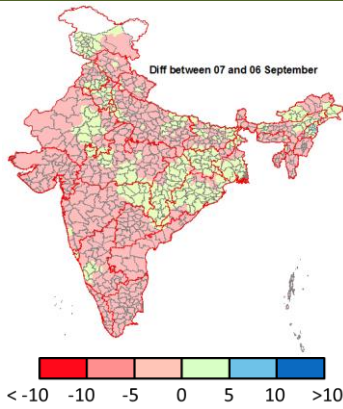


- Extremely/severely wet conditions experienced in few districts of Kerala; Koraput, Puri, Rayagada districts of Odisha; Barabanki, Kannauj, Etah, Mathura districts of Uttar Pradesh; Bandipore district of Jammu & Kashmir; Chamoli district of Uttarakhand; Diu district of Saurashtra, Kutch & Diu; Bijapur district of Chhattisgarh; West Godavari district of Andhra Pradesh; Adilabad district of Telangana; Theni, Tirunelveli districts of Tamil Nadu & Puducherry; Kodagu district of Karnataka.
- Extremely/Severely dry conditions experienced in few districts of Arunachal Pradesh; West Bengal; Jharkhand; Dhubri, Bongaigaon, Morigaon, Tinsukia districts of Assam; West Garo Hills district of Meghalaya; East Champaran, Muzaffarpur, Saharsa, Saran, Siwan, Vaishali districts of Bihar; Ballia, Chandauli, Deoria, Kushi Nagar, Mau, Maharajganj, Ghaziabad, Mahoba districts of Uttar Pradesh; Panchkula district of Haryana; Ferozepur, Kapurthala districts of Punjab; Lahaul & Spiti district of Himachal Pradesh; Hanumangarh district of Rajasthan; Betul, Chhindwara districts of Madhya Pradesh; Ahmedabad district of Gujarat Region; Jashpur district of Chhattisgarh; Cuddapah district of Andhra Pradesh; Dharmapuri, Thanjavur, Tiruvannamalai, Viluppuram, Krishnagiri districts of Tamil Nadu & Puducherry; Raichur, Yadgir, Shimoga, Chickballapur districts of Karnataka; Lakshadweep district of Lakshadweep.
- Moderately dry conditions experienced in few districts of Assam; Uttarakhand; Gujarat Region; Lohit district of Arunachal Pradesh; West Tripura district of Tripura; Burdwan, Hooghly districts of West Bengal; Deoghar, Godda, Palamu, Jamtara districts of Jharkhand; Araria, Begusarai, Jahanabad, Jamui, Katihar, Khagaria, Nalanda, Sheikhpura, Arwal districts of Bihar; Azamgarh, Balrampur, Fatehpur, Jaunpur, Kanpur Dehat, Bulandshahar districts of Uttar Pradesh; Ambala, Hisar, Rohtak, Sonapat, Fatehabad districts of Haryana; Amritsar, Bhatinda, Jalandhar, Mansa districts of Punjab; Kinnaur district of Himachal Pradesh; Udhampur district of Jammu & Kashmir; Jalore district of Rajasthan; Dewas, Dindori, Shahdol, Anuppur districts of Madhya Pradesh; Surendra nagar district of Saurashtra, Kutch & Diu; South Goa district of Konkan & Goa; Satara, Amraoti, Buldhana districts of Maharashtra; Bilaspur, Janjgir, Koriya, Raigarh districts of Chhattisgarh; Nellore, Prakasam, Chittoor districts of Andhra Pradesh; Rangareddy district of Telangana; Dindigul, Namakkal, Perambalur, Trichy, Vellore districts of Tamil Nadu & Puducherry; Bagalkote, Bidar, Bellary, Hassan districts of Karnataka.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

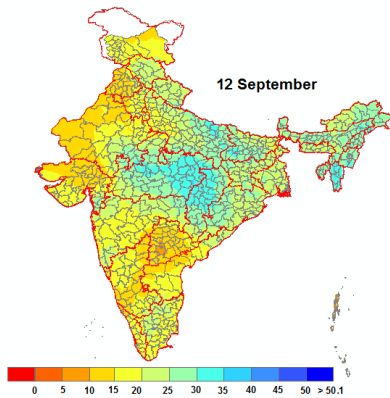
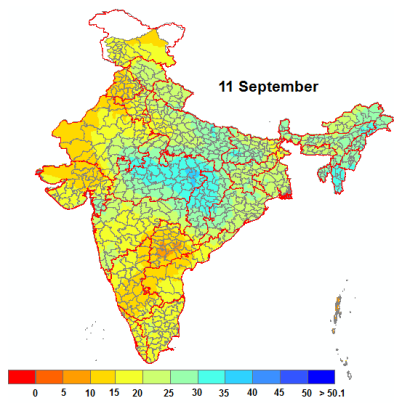
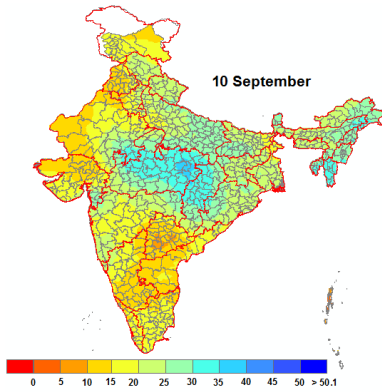
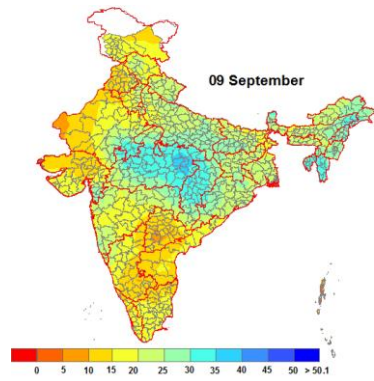
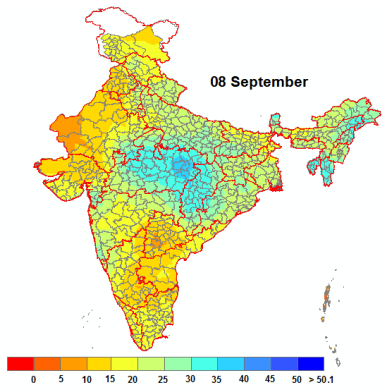
Daily Soil Moisture (mm) for 7th September 2018 (ending at 0830 IST) for 60 cm depth



Difference of Soil Moisture (mm) for 60 cm depth



**Forecasted Soil Moisture (mm) from 8th to 12th September 2018 (ending at 0830 IST)
for 60 cm depth**



Weather Forecast for next 5 days valid upto 0830 hours of 12th September 2018

- Meteorological subdivision wise detailed 5 days rainfall forecast is given in Table below.
- No significant change in temperatures very likely over most parts of the country during next 2-3 days.

5 Day Rainfall Forecast (Mid day) 7th September 2018

Met-Sub-Division	07-Sep Today	08Sep Sat	09Sep Sun	10Sep Mon	11Sep Tue
1. Andaman & Nicobar Islands	ISOL	SCT	FWS	SCT	SCT
2. Arunachal Pradesh	FWS	WS	WS	WS	WS
3. Assam & Meghalaya	FWS	WS	WS	WS	WS
4. N. M. M. & T.	FWS	WS	WS	WS	WS
5. S.H. West Bengal & Sikkim	FWS	FWS	WS	WS	WS
6. Gangetic West Bengal	FWS	SCT	SCT	FWS	FWS
7. Odisha	FWS	SCT	FWS	SCT	SCT
8. Jharkhand	FWS	SCT	SCT	FWS	FWS
9. Bihar	FWS	FWS	FWS	WS	WS
10. East Uttar Pradesh	SCT	SCT	SCT	FWS	FWS
11. West Uttar Pradesh	FWS	FWS	SCT	SCT	SCT
12. Uttarakhand	FWS	FWS	WS	WS	WS
13. Haryana, Chd & Delhi	FWS	FWS	SCT	ISOL	ISOL
14. Punjab	SCT	SCT	ISOL	ISOL	ISOL
15. Himachal Pradesh	FWS	SCT	SCT	FWS	FWS
16. Jammu & Kashmir	SCT	ISOL	ISOL	ISOL	ISOL
17. West Rajsthan	SCT	SCT	ISOL	DRY	DRY
18. East Rajasthan	FWS	WS	FWS	SCT	ISOL
19. West Madhya Pradesh	WS	FWS	SCT	SCT	ISOL
20. East Madhya Pradesh	WS	FWS	SCT	SCT	ISOL
21. Gujarat Region	ISOL	SCT	SCT	ISOL	ISOL
22. Saurashtra & Kutch	ISOL	ISOL	ISOL	ISOL	ISOL
23. Konkan & Goa	WS	WS	FWS	SCT	SCT
24. Madhya Maharashtra	ISOL	ISOL	ISOL	ISOL	ISOL
25. Marathwada	ISOL	ISOL	ISOL	ISOL	ISOL
26. Vidharbha	FWS	SCT	ISOL	ISOL	ISOL
27. Chhattisgarh	WS	SCT	SCT	ISOL	ISOL
28. Coastal Andhra Pradesh	ISOL	ISOL	ISOL	ISOL	ISOL
29. Telangana	SCT	ISOL	ISOL	ISOL	ISOL
30. Rayalaseema	ISOL	ISOL	ISOL	SCT	SCT
31. Tamilnadu & Puducherry	ISOL	ISOL	SCT	FWS	FWS
32. Coastal Karnataka	FWS	SCT	SCT	SCT	SCT
33. North Interior Karnataka	ISOL	ISOL	ISOL	SCT	ISOL
34. South Interior Karnataka	SCT	SCT	ISOL	SCT	SCT
35. Kerala	ISOL	ISOL	ISOL	ISOL	ISOL
36. Lakshadweep	ISOL	SCT	SCT	ISOL	ISOL

% 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

- **07 September (Day 1):** Heavy to very heavy rain at isolated places very likely over Madhya Pradesh and Chhattisgarh and heavy rain at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Odisha, West Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab, East Rajasthan, Konkan & Goa and Vidarbha.
- **08 September (Day 2):** Heavy to very heavy rain at isolated places very likely over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura and East Rajasthan and heavy rain at isolated places over Assam & Meghalaya, West Uttar Pradesh, Uttarakhand and West Madhya Pradesh.

- **09 September (Day 3):** Heavy to very heavy rain at isolated places likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura and heavy rain at isolated places over Sub-Himalayan West Bengal & Sikkim, Uttarakhand and East Rajasthan.
- **10 September (Day 4):** Heavy to very heavy rain with extremely heavy falls at isolated places likely over Arunachal Pradesh and Assam & Meghalaya; heavy to very heavy rain at isolated places over Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim and heavy rain at isolated places over Uttarakhand, East Uttar Pradesh and Tamilnadu.
- **11 September (Day 5):** Heavy to very heavy rain with extremely heavy falls at isolated places likely over Arunachal Pradesh and Assam & Meghalaya; heavy to very heavy rain at isolated places over Sub-Himalayan West Bengal & Sikkim and heavy rain at isolated places over Uttarakhand, East Uttar Pradesh, Bihar, South Interior Karnataka, Tamilnadu and Nagaland, Manipur, Mizoram & Tripura.

Weather Outlook for subsequent 2 days from 12th to 14th September 2018

- Widespread rainfall with isolated heavy to very heavy falls are likely over northeast India, fairly widespread to widespread rainfall activity with isolated heavy falls likely over eastern parts of India and fairly widespread over western Himalayan region.
- Scattered rainfall likely over central India and Tamilnadu and isolated rainfall likely over the the rest of the country except west Rajasthan where dry weather is likely.

Salient Advisories

- As rain/thundershowers likely at most/many places over **Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim** and **Bihar** during the period, at many places over **Odisha** on 7th and 9th, over **Jharkhand** and **Gangetic West Bengal** on 7th, 10th & 11th and over **Andaman & Nicobar islands** on 9th along with heavy to very heavy rain with extremely heavy falls at isolated places likely over Arunachal Pradesh and Assam & Meghalaya on 10th and 11th, heavy to very heavy/heavy rain at isolated places very likely over Nagaland, Manipur, Mizoram & Tripura during the period, over Arunachal Pradesh and Assam & Meghalaya from 7th to 9th September, over Sub-Himalayan West Bengal & Sikkim from 8th to 11th September, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation. In the Sub-Himalayan West Bengal, provide proper drainage facility in large cardamom, soybean, ginger and turmeric fields.
- As rain/thundershowers likely at most/many places over **Uttarakhand** during the period, over **East Rajasthan** from 7th to 9th, at many places over **West Uttar Pradesh, Haryana, Chandigarh & Delhi** on 7th and 8th, over **Himachal Pradesh** on 7th, 10th and 11th, over **East Uttar Pradesh** on 10th and 11th, along with heavy to very heavy rain at isolated places very likely over East Rajasthan on 7th, heavy rain at isolated places over West Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab on 7th, over East Rajasthan on 7th and 9th, over Uttarakhand from 8th to 11th, over East Uttar Pradesh on 10th and 11th September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
- In the upland areas of **North Bihar**, continue land preparation for sowing of September pigeon pea (Pusa-9 and Sarad varieties). Seed may be treated with Thiram/Capton @ 2.5g/kg of seed.
- In **Royalaseema**, rainfed groundnut is at pegging to pod formation stage. In view of the prevailing dry spell, farmers are advised to provide irrigation with sprinklers or rain guns.
- Farmers in Kuttanad region of **Kerala** are advised to drain out the water from flood affected fields (padashekham) using the high capacity vertical turbine pump at the earliest and apply Lime to reduce

acidity. Drain out water from coconut and vegetable fields. As there will be thick deposition of silt at the base of the banana plants, rake the soil followed by earthing up. Ensure aeration and drainage in the banana fields. Remove all the diseased and rotten leaves.

- In Central Narmada Valley Zone of **Madhya Pradesh**, for control of attack of girdle beetle in soybean, spray Thiocloprid (21.7% w/w) @ 650 ml/ha or Traizophos 40 E.C. @ 1000 ml/ha after current spells of rain.

Detailed Agromet Advisories

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

- **Realised Rainfall:** Rainfall occurred in all districts of Coastal Karnataka, Kodagu, Ramanagara and Shivamogga districts of South Interior Karnataka, Vizianagaram district of Coastal Andhra Pradesh, Adilabad district of Telangana, Madurai, Sivaganga and Villupuram districts of Tamil Nadu and Puducherry during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at many places over Coastal Karnataka on 7th, over Tamil Nadu & Puducherry on 10th and 11th, along with heavy rain at isolated places likely over South Interior Karnataka on 11th and over Tamilnadu & Puducherry on 10th and 11th September, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - **Kerala:**
 - Farmers in Kuttanad region are advised to drain out the water from flood affected fields (padashekham) using the high capacity vertical turbine pump at the earliest and apply Lime to reduce acidity. Drain out water from coconut and vegetable fields.
 - As there will be thick deposition of silt at the base of the banana plants, rake the soil followed by earthing up. Ensure aeration and drainage in the banana fields. Remove all the diseased and rotten leaves. Provide support to banana plants. Tapping in rubber can be resumed. Repair damaged rain guards. Take care of tapping panels.
 - For controlling the blast disease in rice especially neck blast, apply Carbendazim (Bavistin) 1gm or Iprophenphos (Kitazin EC) 1ml/litre of water. To control bacterial leaf blight in paddy, mix 200 g of cow dung in 1liter of water and spray the cow dung slurry by mixing with 20g pseudomonas twice at 10 days interval. To control Red palm weevil in coconut, close all the holes at lower portion of the palm leaving a hole at the top portion open and pour a solution of Dichlorvos (Nuvan) 100 EC @ 10 ml/ litre of water. Spray the solution of Lamdacyhalothrin insecticide 3ml + Copper Oxychloride fungicide 5g dissolved in 5 litres of water for mosquito bug – blight disease complex in Cashew plants at flushing stage.
 - **Andhra Pradesh:**
 - In Coastal Andhra Pradesh, in case of transplanting with old /aged seedlings, transplant 44 hills/sq. meter to reduce the yield losses to some extent. Take up inter cultivation and hand weeding in groundnut field to minimize soil moisture loss. Apply recommended doses of fertilizers to crops like paddy, BT cotton, red gram, black gram, green gram and bajra.
 - In Rayalaseema, take up sowing of contingency crops like kora, bajra and horse gram instead of rain-fed groundnut under sufficient soil moisture conditions. Rainfed groundnut is at pegging to pod formation stage. In view of the prevailing dry spell, farmers are advised to provide irrigation with sprinklers or rain guns.
 - In Coastal Andhra Pradesh, spray Propiconazole @ 1.0 ml or Hexaconazole @ 2.0 ml per litre of water for sheath blight and Acephate @ 1.5 g or Cartap hydrochloride @ 2.0 g per litre of water for leaf folder in paddy crop. Spray Dimethoate @ 1.7 ml per litre of water for sucking pest in vegetables.
 - In Rayalaseema, the present weather conditions are favourable for White fly, Thrips and mite in sugarcane. To control spray Monocrotophos @ 1.6 ml (or) Dimethoate 1.7 ml and to control mite spray wettable sulphur @ 3 g per litre of water. To control Helicoverpa in groundnut, spray Carbendizem @ 1 g (or) Mancogeb @ 2 g per litre of water. Tikka leaf spot disease was observed in groundnut in some parts of Ananthpur division. To control, spray Saaf 3g (Mancozeb 2g + Carbandazim 1g) per litre of water.
 - **Telangana:**
 - Continue transplanting of Chillies. Take up transplanting of rice in East West direction with 20 cm alley ways at 2 m interval to minimize the incidence of BPH during crop season.
 - Prevailing weather conditions are congenial for the incidence of hispa and stem borer in rice. To control hispa, spray Quinalphos or Profenophos @ 2 ml or Chlorpyriphos @ 2.5 ml per litre of water. For stem borer, apply Cartap Hydrochloride 4G @ 8kg per acre. The incidence of Stem Fly and Stem Girdler is noticed in Soybean. To control, spray Dimethoate @ 2 ml per liter or Quinalphos @ 2 ml + Neem seed kernel extract (NSKE) @ 5 ml per liter or Chlorantriliniprole @ 0.3 ml per liter of water. Prevailing weather conditions are congenial for the incidence of sucking pests in cotton. To prevent the pests, apply Monocrotophos and water in 1:4 ratio

with a soft brush on tender part of the stem for 30 days old crop. Prevailing weather conditions are congenial for army worm in maize crop. To control, if the larvae is at initiation stage, spray Chlorpyrifos @ 2.5 ml/litre of water. If the incidence is severe, spray Chlorantraniliprole @ 0.3 ml/litre of water. The present weather conditions are favourable for occurrence of stem and fruit borer in brinjal. To control, remove the affected stem and fruits, and spray Monocrotophos @ 1.6 ml or Thiodicarb @ 1g per litre of water.

▪ **Tamil Nadu:**

- For direct sown rice in Samba season, sowing by using tractor drawn seed drill, seed rate of 15 kg/acre is advised. For manual broadcasting seed rate of 30 kg/acre is required. Seeds should be treated with pseudomonas fluorescence 10g/kg of seed before sowing. Apply 100 kg of neem cake before transplanting to avoid insect and nematode attack. Provide propping for early season and midseason planted sugarcane against lodging with heavy wind. Also protect banana crop against lodging by giving support. Considering the rainfall, gap filling in Cambodia cotton may be done to maintain optimum population. Select good quality maize seeds for sowing. Dibble or drill the seeds at a depth of 4 cm.
- To control the incidence of sucking pest in the vegetable crops, spray neem seed kernel extract 5%. Due to present weather, thrips insect attack is observed in samba paddy nursery. Spray Monocrotophos @ 2ml per litre of water. Apply 1 kg of Trichoderma Viride with 100 kg of farm yard manure per acre of land to prevent diseases caused by fungus in small onion. Undertake plant protection measures after current spells of rain.

▪ **Karnataka:**

- In Coastal Karnataka, to reduce the flower bud/flower drop in cotton, spray Planofix @0.25 ml/litre of water. To avoid the Zinc deficiency in rice field, apply Zinc Sulphate @ 20 kg/ha.
- In South Interior Karnataka, provide protective irrigation to standing crops as per requirement. Spray Planofix @1.0 ml /4.5 liters of water against flower drop in cotton. Complete sowing of short duration crops like cowpea (vegetable purpose), field bean, horse gram, Foxtail millet, Little millet, Kodo millet and ragi crops. Continue intercultural operations in groundnut, maize and red gram crop after current spells of rain.
- In North Interior Karnataka, complete the harvesting of green gram. In medium black to deep black soils, undertake sowing of sunflower and *rabi* sorghum crops. Continue intercultural operations in pigeon pea, soybean and maize crops to conserve soil moisture and earthing up in maize. Apply irrigation in sugarcane in alternate rows to save water or adopt drip irrigation method. Undertake nipping in red gram. Prepare the ridges and furrows and compartment bunds in the lands reserved for *rabi* sowing so as to conserve moisture in the soil which will be helpful for the *rabi* crops.
- In South Interior Karnataka, to manage Bacterial blight disease in Pomegranate, spray Streptomycin Sulphate @ 0.5 g+ Copper Oxy-Chloride @2.5 g/liter of water; then take up spraying of Micro nutrients viz., 1 g Zinc Sulphate + 1 g Magnesium Sulphate + 1 g Borax + 1g Calcium dissolved in one liter of water.
- In North Interior Karnataka, to manage powdery mildew disease in late sown green gram and black gram crop spray Propioconazole @ 0.5ml or wettable Sulphur @ 3gm or Carbendiazim @ 1 g dissolved in one litre of water in clear weather. Spray Oxydemeton Methyl 25 EC or Imidacloprid 17.8 SL @0.25 ml in 1 liter of water for controlling green leaf hoppers and thrips in sunflower.

• **Animal Husbandry**

- In Karnataka, vaccinate the animals against the diseases like Foot & Mouth disease, Haemorrhagic Septicaemia and Black Quarter. Vaccinate (ET vaccine) sheep and goats against Enterotoxemia.
- In Kerala, there are chances of contagious disease in cattle during monsoon season. Avoid grazing in water logged areas. Keep hygienic conditions in sheds to prevent mastitis disease in cows. Take vaccination from nearby veterinary clinics. Consult veterinary doctor for medication.
- In Tamil Nadu, the period between September to November is the vulnerable period for the spread of foot and mouth disease. Hence vaccination of is advised for the control of disease. To control ticks, spray Butox (2ml butox per liter of water) to avoid spread of haemoprotozoan infection in cattle.

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

Realised Rainfall: Rainfall occurred in all districts of Arunachal Pradesh except Dibang Valley, Tawang, Tirap and Upper Siang, in all districts of Assam except Baksa, Bongaigaon, Darrang, Dhubri, Goalpara, Karbi Anglong, Nagaon and Nalbari, in all districts of Meghalaya except South Garo Hills, in Aizwal, Kolasib, Lunglei and Serchhip districts of Mizoram, Imphal West district of Manipur, North Tripura and South Tripura districts of Tripura and all districts of Nagaland except Dimapur during the week. Weather remained mainly dry over rest of the region.

• **Advisories:**

- As rain/thundershowers likely at most/many places over Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh and Assam & Meghalaya during the period, along with heavy to very heavy rain with extremely heavy falls at isolated places likely over Arunachal Pradesh and Assam & Meghalaya on 10th and 11th, heavy to very heavy/heavy rain at isolated places very likely over Nagaland, Manipur, Mizoram & Tripura during the period, over Arunachal Pradesh and Assam & Meghalaya from 7th to 9th, September, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate

drainage in standing crop fields to avoid water stagnation.

▪ **Arunachal Pradesh:**

- Carry out earthing up of exposed rhizomes in ginger field followed by weeding after current spells of heavy rain. Monitor rice crop against sheath blight. For control, spray Sheathmar @ 3 gram per litre of water. Strictly monitor gundhi bug in kharif rice. Manually collect and destroy adults and nymph at this stage of crop to manage pest population. If population level is high, apply Carbaryl or Malathion dust. Undertake plant protection measures after current spells of rain.

▪ **Assam:**

- Undertake sowing of seeds @ 8-10gm/sq.m for early cauliflower varieties like Early Kunwari, Pusa Katki, Pusa Deepali and radish varieties like Pusa Desi, Pusa Himani, Pusa Chetki after current spells of heavy rain.. Continue harvesting Olitorius jute. Nursery sowing of winter brinjal, Recommended varieties viz, 'Pusa Kranti', 'Pusa Purple Long', 'Pusa Purple Cluster', 'Pusa Bhairav', 'JC-2', 'BWR-12' etc. may be sown in nursery beds after current spells of heavy rain. Avoid sowing black gram and green gram in Upper Brahmaputra valley zone.
- In rainy weather condition papaya plant get affected by mosaic and leaf curl diseases. For effective control of the diseases rouge out the affected plant or spray with Rogar @ 0.1%. In present weather conditions, constantly monitor for brown plant hopper (BPH) in paddy field. If insect population is above ETL, spray Imidacloprid 17.8 % SC@ 1ml / 3 litres or Fenobucarb 50 EC @ 1 ml/ litre or Buprofezin 25 EC @ 2 ml/ litre of water. Prevailing weather is favourable for attack of leaf folder, army worm, rice hispa at tillering stage of paddy field. To control, spray Chloropyriphos 20EC or Monocrotophos 40EC @ 1.5ml per liter of water. Undertake plant protection measures after current spells of rain.

▪ **Meghalaya:**

- Prepare nursery bed for sowing of cole crops. Sow the seeds of broccoli (varieties Pushpa, Aiswarya, Fiesta, Lucky, etc.); cabbage (H-139) & cauliflower (local) in the nursery at 5 cm spacing between the line under the protected structures. Maintain 5 cm of standing water in rice field. Keep the field free of weeds. Continue sowing of French bean and cow pea. Maintain proper drainage in ginger, turmeric, maize and cucurbit fields. Harvest mature cobs of maize in mid and high altitude regions. Harvest cucurbits, brinjal and chilli.

▪ **Manipur:**

- Maintain 5 cm water level in paddy field. Provide drainage in black gram, rice bean, soybean and groundnut crops. Carry out land preparation for planting potato for early crop and also for production of seeds in foothills and upland areas with fertile and sandy loam soil. Complete the field preparation for sowing French bean for both dwarf and pole types Avoid water logged areas and too much wet soil and prefer raised beds.
- In the rice field, spray Coragen 3-5 ml per 15 litres of water at early stage infestation of case worm, stem borer, gall midge, hoppers and thrips. Spray Carbendazim @ 0.5g / litre of water to control Tikka disease in groundnut. Spray Dichlorovos 76 EC 0.05% @ 0.6ml/ litre of water against hairy caterpillars in black gram and rice bean crops after current spells of rain.

▪ **Mizoram:**

- Transplant 2-3 seedlings of kharif rice in one place to avoid gap filling. Spacing should be 20 cm row to row and 15 cm plant to plant. Keep some seedlings in nursery or corner of the field for gap filling. Harvest all chilli and cucurbit crops and keep seeds for next season. Undertake raising seedlings of Khasi mandarin, acid lime, star fruit, plum and peach. Transplant seedlings in secondary bed or polythene bags at 4-6 leaves stage. Maintain proper drainage in passion fruit, coffee, rubber and oil palm plantations and in maize, pulses and paddy fields. Carry out earthing up in ginger and turmeric crops. Undertake planting of rubber at newly established place.
- In large gardens of cucurbitous crops, apply Carbaryl 0.2 per cent or Malathion 0.15 per cent suspension containing sugar or jaggery at 10 g/litre of water at fortnightly intervals at flowering and fruit initiation against fruit fly/pumpkin beetle after current spells of rain.

▪ **Tripura:**

- Carry out weeding in paddy fields at tillering stage of Aman rice after current spells of heavy rain. Carry out land preparation for sowing of black gram and green gram after current spells of heavy rain. Avoid stagnation of water in groundnut field.
- Prevailing cloudy and humid weather is conducive for the attack of blast disease in rice crop. The attack can be managed with continuous flooding. For chemical control of the disease, apply Tricyclazole 75 WP @ 0.6 gm/litre of water of water or Carbendazim 50 WP (Bavistin) @ 1 gm per liter of water. Due to cloudy and humid weather there may be attack of Stem and Cob rot disease. The combination of Trichoderma Viride (5ml per litter) and Seodomonous Flurensense (5ml per litter) may be applied to manage the attack. Undertake plant protection measures after current spells of rain.

▪ **Nagaland:**

- Carry out earthing up in soybean field. Carry out timely harvesting in cucurbits and okra. Avoid injuries to cucurbit crops while harvesting and handling.

- Remove infested okra and brinjal fruits and shoots regularly and destroy them. Monitor TRC/WRC paddy against brown spots. Use mechanical methods such as smoking and hand picking of adults and nymphs to prevent gundhi bug attack in Jhum paddy at panicle initiation stage. To control leaf folder in TRC/WRC paddy, use mechanical methods, such as rope method to dislodge the larvae.
- **Animal Husbandry**
- Keep the poultry house well ventilated during the day time. Change litter periodically and provide fresh and clean drinking water. Vaccinate poultry birds against Fowl pox, Coccidiosis, Ranikhet and Gamboro diseases.
- De-worm pigs/piglets, goat and sheep. Vaccinate pigs against FMD & swine fever and cattle/sheep/goat against FMD, Hemorrhagic Septicaemia, Black Quarter, etc. To prevent mastitis in dairy cows, clean the floor of the dairy shed with suitable antiseptic solution. Wash and clean the udder of cows before and after milking. Precaution should be taken against Japanese encephalitis, a mosquito borne disease. Avoid stagnant water in and around the sty, maintain proper hygienic condition
- **Fishery**
- Composite culture of fish with long duration rice varieties in low land situation may be undertaken to increase the income. About 1350 numbers of fingerlings (Rohu, Common carp, Mrigal, Catla etc) may be released in one bigha of land after transplanting of paddy.

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

Realised Rainfall: Rainfall occurred in all districts of Andaman and Nicobar Islands except Nicobar, all districts of Bihar except Sheohar, all districts of Jharkhand except Saraikela, all districts of Odisha except Balasore, Bargarh, Bolangir, Gajapati, Kandhamal, Nawapara and Nawarangpur, all districts of Sub-Himalayan West Bengal & Sikkim except South Dinajpur and all districts of Gangetic West Bengal except East Midnapore and Hooghly during the week.

- **Advisories:**

- As rain/thundershowers likely at most /many places over Sub-Himalayan West Bengal & Sikkim and Bihar during the period, at many places over Odisha on 7th and 9th, over Jharkhand and Gangetic West Bengal on 7th, 10th & 11th and over Andaman & Nicobar islands on 9th along with heavy/heavy to very heavy rain very likely at isolated places over Sub-Himalayan West Bengal & Sikkim from 8th to 11th and heavy rain very likely at isolated places over Odisha on 7th September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation in Sub-Himalayan West Bengal & Sikkim.

- **Odisha:**

- In transplanted rice crop at 20 days stage, undertake weeding and apply 16 kg Nitrogen per acre. If swarming caterpillar has been found in rice, apply Chloropyriphos around the bunds of the affected field to prevent the entry of pest to the unaffected field. Spray 400 ml Chloropyriphos in 200 litre water per acre in the afternoon hour. High humidity, low temperature and cloudy weather favours the infestation of blast. So to control it, spray 1 g Beam and 1.5 g Hinosan in 2 litre twice at 15 days interval. For controlling Bacterial Leaf blight, spray Copper Oxychloride 20 g along with 10 g Plantomycine in 20 litres of water. Undertake plant protection methods after current spells of rain.

Go for sowing of sesame. Grow improved HYV like Prachi, Kalika, Kanak, Vinayak etc. Use 1 to 1.2 kg seeds /acre. Before sowing treat the seeds with 3 g Ceresan/kg seeds. Apply 6:8:8 kg NPK/acre during final land preparation. Sow the seeds in lines at 30x10 cm. Undertake nursery raising of tomato and brinjal.

- Complete hoeing, weeding and earthing up in pigeon pea at six-seven week stage. Early sown maize crop is at 6 to 7 week stage. Apply 8 kg N/acre followed by earthing up. Continue nursery raising of tomato and brinjal and continue planting of lemon, banana, papaya and mango saplings.
- Ensure good drainage in the banana plantation. In the prevailing weather, there is chance of Sigatoka disease in banana. As a precaution, Spray Pseudomonas 20g/litre of water. In case of severe attack, spray 1 g Bavistin by mixing it with gum in 1 liter of water on lower surface of the leaf.

- **Bihar:**

- In the upland areas of North Bihar, continue land preparation for sowing of September pigeon pea (Pusa-9 and Sarad varieties). During land preparation, application of Nitrogen 20kg/ha, Phosphorus 45kg/ha, Potash 20 kg/ha and Sulphur 20 kg /ha is advised. Seed may be treated with Thiram/Capton @ 2.5g/kg of seed. Intercultural operation is advised in July sown pigeon pea crop after current spells of rain.
- Continue planting of pointed guard Rajendra parwal-1, Rajendra Parwal-2, FP-1, FP-3, Swarm rekha, Swarn allokkik, IIVR-1, 2, 105 varieties in North Bihar. Seed rate @ 2500 plants/hectare with planting distance of 2x2 meter are advised.
- Continue planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, custard apple, lemon etc. after current spells of heavy rain. Before planting, application of 40-50 kg FYM per plant is advised.
- Regular monitoring is advised for infestation of stem borer in rice crop at tillering stage. If infestation is observed, application of Cartap hydrochloride 4G(*Caldan*) @10kg/acre is advised to protect the crop.

- **Jharkhand:**
 - Utilising the realised and expected rainfall, continue sowing of Niger in fallow uplands with improved variety of Niger are Birsa niger-1, Birsa niger-2, Birsa niger-3, Pooja-1. Undertake nursery raising of tomato, brinjal, cabbage and cauliflower.
 - To control stem borer attack in rice, spray Monocrotophos 36 E.C. @ 1-2 ml per litre of water and mix Tipol in the solution or prepare the solution in soap water. In case of heavy infestation of the insect, apply granular insecticide like Carbofuran 3 G @ 12 kg per acre) or Forate 10 G (@ 4 kg per acre). However, at the time of broadcasting of granular insecticide, stagnant water in the field is essential. Undertake weeding in transplanted finger millet.
 - Due to high humidity and cloudy weather, there is chance of tikka disease in groundnut. Apply Endofil M-45 (4g)+ Bavistin 1g in 4 litres of water after current spells of rain.
- **West Bengal:**
 - In the Sub-Himalayan West Bengal, provide proper drainage facility in large cardamom, soybean, ginger and turmeric fields. Complete the retting of jute and extract the fibre from jute. After extraction, spread the fiber in sunlight for drying. Preparation of seed bed for early winter vegetables crops. Carry out earthing up, weeding and draining out of excess water in ginger and turmeric fields.
 - In Gangetic West Bengal, undertake sowing of sweet corn and baby corn on a raised bed. Maintain 2-3 inch water level in the Aman paddy field. Keep the arrangement of weed free drainage channel. Weeding should be done at regular interval by hand weeding in the main field. Drain out excess water for avoiding dump condition inside the betel vine garden. Prepare upland area for sowing of early winter vegetables like cabbage, cauliflower, etc. Make seed bed with proper ridge furrow system for proper drainage of rain water.
 - In Sub-Himalayan West Bengal, to control brown spot of rice, spray Hexaconazole @ 1ml/litre of water. For the management of cucurbitaceous fruit fly population, use pheromone traps. For management of brinjal fruit & shoot borer, spray Coragen 18.5% E.C @ 0.5 ml/litre of water after clipping off all the infested twigs, flowers, buds, fruits, etc. Spray Azadirachtin 0.03% (300PPM) neem oil based WSP @ 2000gm/ ha in 1000 litres of water, if 10% dead heart or 2 egg mass / sq. meter of yellow stem borer is found in rice.
 - In Gangetic West Bengal, for stem borer attack in Aman paddy, broadcast Cartap 4% granules or Carbofuran 3% G @ 10 kg/acre or Chlorpyrifos 20 EC @ 2 ml/ litre of water for effective control. If insect population of fruit borer, diamond back moth, etc. is above ETL in cabbage and cauliflower, spray Spinosad 1.0 ml/4 litres of water under clear sky conditions. Spray Dimethoate 30% EC @ 1ml/litre of water at clear weather condition to control sucking pests in chilli, brinjal and bhindi. If sheath blight found above threshold level in case of high yielding aman paddy variety, spray Kopiconazole @ 1.5ml/litre of water with sticker. Closely observe the field every morning for any disease attack. Stem rot or phytophthora attack may take place in betel vine due to occasional rains and high humidity Pluck the affected leaf from field, apply Redomil @1.5ml/litre of water and drain out excess water and arrange proper aeration. Undertake plant protection measures after current spells of rain.
- **Andaman & Nicobar Islands:**
 - To control leaf folder in rice main field Set up light traps @ 4/ha to attract and kill the adult moths. Prepare raised bed in home garden and sow 3-4 seed of cucurbit and 2-3 seeds of beans per pit.
- **Animal Husbandry**
 - In West Bengal, protect animals from diseases caused due to rainy conditions and de-worm them at this time. Keep the shade clean and dry. Vaccinate cattle against BQ and FMD. Vaccinate goat and sheep against Enterotoxemia. To prevent fungal attack in poultry shed, rearrange the litter with new one, apply lime on litter, avoid wet food and feed only dry food to birds. The thickness of litter should not be exceeded 1and a 1/2 inch. Vaccinate poultry birds against Ranikhet disease.
 - In Andaman & Nicobar Islands, keep the poultry litters dry by stirring the litters frequently and adding hydrated limes at the rate of 7 kg per 100 sq feet floor space.
 - In Bihar, animals must be vaccinated for FMD, HS and BQ namely Trivac vaccine administered dose @ 2.5-3ml S/C per animal is recommended.
- **Fisheries**
 - In West Bengal, apply mustard oil cake and rice bran (1:1) as fish feed @ 3-2% body weight of total stock of fish in the pond. Run off of water from outside due to rain makes the pond water dirty. Increase the height of bank around the pond, clean the water by removing weeds and other wastage material and apply lime or potassium permanganate solution in the water.
 - In Andaman & Nicobar Islands, feed fish fingerlings of IMC carps with the mixture of rice bran and ground nut oil cake at 1:1 ratio at the rate of 2 % of body weight.
 - In Odisha, it is right time to go for pisciculture. Collect fingerlings. After releasing the fingerlings in the ponds, keep a bag full of FYM or paddy husk. Depending upon the size of the ponds, apply 5-10 kg of limes to newly developed pisciculture. Maintain 6 ft water depth with pH 6.8-7.5, turbidity 20-30 cm and plankton growth of 2.5/50 liter water. Avoid overcrowding. The fishes should be fed daily with oil cake bran mixture at

the rate of 2-3 % of their total biomass.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rainfall occurred in all districts of Konkan & Goa except Mumbai City and South Goa, in Gondia district of Vidarbha, Aravalli, Bharuch, Dangs, Navsari, Surat, Valsad districts of Gujarat Region, Jungarh and Porbandar districts of Saurashtra & Kutch during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - As rain/thundershowers likely at most/many places over Konkan & Goa from 7th to 9th, at many places over Vidarbha on 7th, along with heavy rain at isolated places over Konkan & Goa and Vidarbha on 7th September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - In Konkan, maintain water level of 5-10 cm in rice field. Apply third dose of Urea @ 435 g per Are (100 m²) area to rice (flowering stage) after current spells of rain. In South Konkan, undertake new planting of fruit crops like mango, cashew, coconut, arecanut. In North Konkan, undertake intercultural operation like weeding in nagli after current spells of rain.
 - In Madhya Maharashtra, maintain 5-10 cm water level in rice fields. Undertake land preparation for rabi jowar and safflower. Apply protective light irrigation in *kharif* crops if soil moisture stress is observed. Undertake land preparation for rainfed gram. Undertake intercultural operation like weeding in pigeon pea. To minimize water stress in soybean and cotton, spray 2% urea or 1.5% potassium nitrate.
 - In Marathwada, complete harvesting of matured black gram and green gram and keep harvested produce in safer place.
 - In West Vidarbha, undertake harvesting of matured green gram and black gram and keep the harvested produce in safer place. In East Vidarbha, maintain 3-5 cm water level in rice fields. Undertake foliar spray of 2% Urea (200 g Urea +10 litre water) in soybean (flowering stage) for better productivity and undertake drenching with Copper Oxy-chloride @ 25 g per 10 litre of water in raised bed nursery seedlings of vegetables after current spells of rain.
 - In Konkan, for control of leaf folder in rice, spray 25 % Quinalphos @ 18 ml or 40% Triazophos @ 13 ml or 5% Lambda cyhalothrin @ 5 ml per 10 liter of water after current spells of rain.
 - **Gujarat:**
 - In South Gujarat, complete sowing of pigeon pea, green gram and black gram crops, where crop was damaged due to water logging condition. Continue sowing of cucumber.
 - In Saurashtra & Kutch, apply irrigation in groundnut (pegging stage) and vegetable crops. Undertake picking of ripen pods of cow pea and green gram in time. Complete transplanting of brinjal, chilli and early cauliflower seedlings under sufficient moisture condition. Continue intercultural operations vegetable crops to conserve soil moisture.
 - In North Gujarat, carry out gap filling in castor and fennel crops. Carry out intercultural operations in standing crops.
 - In Middle Gujarat, complete transplanting of tomato, brinjal and chili crops. Carry out intercultural operations in pearl millet and groundnut crops.
 - In North Gujarat, if infestation of heliothis is observed in green gram and cowpea crops, spray Quinalphos 25 EC @ 20ml in 10 litres of water or Renaxypyr @ 3 ml in 10 litres of water in clear weather.
 - In Middle Gujarat, spray Tebuconazol 25 EC @10 ml or Propiconazol 25 EC @10 ml or Mancozeb 75 WP @27 g in 10 liters of water against Maydis leaf blight in maize. Spray 10 % Neem leaf extract.
 - In South Gujarat, install 5 pheromone traps for monitoring of pink bollworm in cotton. To manage infestation of white fly in chilli and brinjal crops, apply Triazophos 40 EC @ 20 ml/10 litres of water.
 - In North Saurashtra, under present weather conditions, severe attack of thrips observed in cotton since last two weeks; for control, spray Profenfos @ 20 ml or Ethion @ 20 ml + Imidacloprid 30.5 % @ 3 ml with neem seed extract 500 ml or neem oil 40 ml/10 litres of water.
- **Animal Husbandry**
 - In Gujarat, spray Deltamethrin or Amitraz 2 ml/litre of water for the control of tick. Keep animals indoors during rainfall. Keep fodder in safe place to avoid spoilage due to rainfall.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Rainfall occurred in all districts of East Madhya Pradesh except Chhindwara, Mandla, Shahdol and Sidhi, in Ashoknagar, Bhind, Datia, Guna, Gwalior, Hoshangabad, Morena, Neemuch, Raisen, Rajgarh, Sheopur Kalani, Shivpuri and Vidisha districts of West Madhya Pradesh, all districts of Chhattisgarh except Baladoa Bazar, Bemetara, Bilaspur, Dhamtari, Kabirdham, Kanker, Kondagaon and Narayanpur during the

week. Weather remained mainly dry over rest of the region.

• **Advisories:**

➤ As rain/thundershowers likely at most places over Chhattisgarh on 7th, at most/many places over Madhya Pradesh on 7th and 8th, along with heavy to very heavy rain at isolated places very likely over Madhya Pradesh and Chhattisgarh on 7th, heavy rain at isolated places over West Madhya Pradesh on 8th September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.

▪ **Madhya Pradesh:**

➤ In West Madhya Pradesh, provide proper channels for drainage of excess rain water in the crop fields. Continue intercultural operations in green gram, black gram, red gram, soybean, maize and vegetables after current spells of rain. Apply remaining 1/3 dose of recommended nitrogen fertilizer in form of urea in maize and in rice crop @ 15kg/acre after current spells of rain. Continue transplanting of new saplings of orchards.

➤ In East Madhya Pradesh, provide proper channels for drainage of excess rain water in the crop fields continue weeding in rice, maize and vegetable crops and apply the recommended nitrogen fertilizer in clear weather. Continue planting of horticultural crops like papaya, mango, guava etc.

➤ In Kymore Plateau and Satpura Hill Zone, continue intercultural operations in rice, soybean and red gram in clear weather. Continue nursery preparation for early season *rabi* vegetables.

➤ In Central Narmada Valley Zone, for control of attack of girdle beetle in soybean, spray Thiacloprid (21.7% w/w) @ 650 ml/ha or Traizophos 40 E.C. @ 1000 ml/ha after current spells of rain.

➤ In Satpura Plateau Zone, to control infection of sucking pest in cotton, spray Thaymethoxzon @ 0.25 g/litre of water or Imidacloprid @ 0.5 ml/litre of water after current spells of rain.

▪ **Chhattisgarh:**

➤ Provide adequate drainage in vegetables, pulses and oilseed crops. Continue first top dressing with urea (25 kg/acre) in rice at tillering stage after current spells of rain. Continue intercultural operations in different *khari* crops like maize, arhar, groundnut, soybean, urad, moong, vegetables etc. after current spells of rain. Continue planting of banana, papaya, mango, guava etc. Continue nursery sowing of brinjal, early tomato, chilli and onion in upland areas. If the upland area is still fallow, farmers are advised to sow the crops like horsegram and Niger.

➤ In Bastar Plateau Zone, earthing up should be done in colocasia, amahaldi, turmeric and elephant foot yam for effective rhizome formation and weed management. Continue planting of improved varieties of grafted cashew nut plant (Indira kaju-1, Vengurla-4, Vengurla-7, Vengurla-9 etc). Undertake weeding in rice and apply second dose of Nitrogen in clear weather.

➤ For control of attack of blast in rice crop, spray Tricyclazole @120 g per acre and the spray should be repeated after 10-12 days as per requirement after current spells of rain.

• **Animal Husbandry**

➤ In Madhya Pradesh, cattle should be keep in shade and provide clean and fresh water two times a day. Vaccinate the cattle for control of FMD and HS disease.

➤ In Chhattisgarh, provide concentrate feed to milch animals mixed with dry and green fodder and insure for enrich diet having protein, carbohydrate, fat, vitamins etc.

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

• **Realised Rainfall:** Rainfall occurred in all districts of Himachal Pradesh except Kinnaur, Kullu and Lahaul & Spiti, in Fatehgarh Saheb, Gurdaspur, Hoshiarour, Nawashahar, Patiala, Ropar and Sas Nagar (Mohali) districts of Punjab, all districts of Haryana except Ambala, Fatehbad, Hissar, Jind, Katihal, Kurukshetra, Panchkula and Sirsa, in New Delhi, North Delhi, North East Delhi and South West Delhi districts of Delhi, Jammu, Reasi, Samba and Udhampur districts of Jammu & Kashmir, all districts of East Uttar Pradesh except Balrampur, Basti, Lucknow, Sant Kabirnagar and Shrawasti, all districts of West Uttar Pradesh, all districts of Uttarakhand except Almora, all districts of East Rajasthan except Ajmer, Banswara, Bhilwara, Bundi, Dungarpur, Kota, Pratapgarh, Rajasmund, Sirohi and Udaipur during the week. Weather remained mainly dry over rest of the region.

• **Advisories:**

➤ As rain/thundershowers likely at most/many places over Uttarakhand during the period, over East Rajasthan from 7th to 9th, at many places over West Uttar Pradesh, Haryana, Chandigarh & Delhi on 7th and 8th, over Himachal Pradesh on 7th, 10th and 11th, over East Uttar Pradesh on 10th and 11th, along with heavy to very heavy rain at isolated places very likely over East Rajasthan on 7th, heavy rain at isolated places over West Uttar Pradesh, Haryana, Chandigarh & Delhi, Punjab on 7th, over East Rajasthan on 7th and 9th, over Uttarakhand from 8th to 11th, over East Uttar Pradesh on 10th and 11th September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.

- **Jammu & Kashmir:**
 - Maintain water level of 3-5cm in order to avoid stress in rice at flowering stage. Undertake sowing of toria, methi, spinach beet, coriander, radish, carrot, beet root and spinach. Apply irrigation in maize and pulses. Continue nursery raising/transplanting of cole crops and sowing carrot and radish. Continue cultivation of Dhingri (*Pleurotus* spp.) mushroom. Continue intercropping operations in pulses and maize. Continue weeding and hoeing in ginger and turmeric. Continue picking up of matured tomato, brinjal, capsicum, okra and broccoli.
 - In Intermediate Zone there are chances of attack of blister beetle in maize crop. If observed, apply Carbofuron 3G @ 20 kg/ha (apply 3-4 granules/leaf whorls to control the blister beetle) on a non rainy day.
- **Uttarakhand:**
 - Continue sowing of pea, radish, cabbage, broccoli and turnip after current spells of heavy rain. Provide proper drainage in *kharif* maize, pulses and vegetables fields. Continue picking up of matured cucurbits and vegetables like tomato, capsicum, chilli in clear weather. Continue harvesting of matured apple. Continue planting of orchards like mango, guava, lemon, papaya, litchi etc. Continue intercropping operations in soybean, black gram, maize and rice after current spells of rain.
 - In Sub Humid Sub Tropic Zone, maintain water level of 2-3 cm in rice fields. Continue field preparation for vegetable pea and toria. Continue transplanting of brinjal and chilli. Continue picking up of matured cucurbits in clear weather. Provide proper drainage in standing crop fields.
 - To control leaf blight disease in maize crop, spray Mancozeb @ 2.5g/litre of water after current spells of rain.
- **Himachal Pradesh:**
 - Make bunds for conserving rain water in the rice fields. Bund should be higher and wider so that more rain water can be conserved in the fields. Continue intercropping operations in peas, turnip, carrot, spinach in high hilly regions after current spells of rain. In mid hill region continue nursery sowing of Chinese cabbage and direct sowing of raddish, carrot, broccoli and lettuce. In High Hill Temperate Dry Zone, continue sowing of oats. Continue intercropping operations in vegetables in polyhouse. Undertake weeding in apple orchard. Undertake nursery sowing of mid season cauliflower and cabbage in poly house in mid hills and lower regions.
 - In Mid Hills Sub-Humid Zone, continue sowing of Arkel pea, spinach, methi and raising of nursery of cauliflower and cabbage.
 - To control attack of stem borer in rice, broadcast of Cartap 4% granules or Carbofuran 3% G @ 10 kg/acre or Chlorpyrifos 20 EC @ 2 ml/litre of water after current spells of rain.
 - To control white fly and sucking pest in vegetables spray Imidacloprid @ 1 ml/3litres of water after current spells of rain.
- **Punjab, Haryana & Delhi:**
 - In Punjab, in transplanted rice, apply second and third dose urea @ 37 kg per acre. Apply irrigation in rice, cotton, maize and vegetables as per requirement. Undertake sowing of spinach, radish, turnip and carrot. Continue weeding and hoeing in sugarcane, maize, pulses, vegetables and orchard crops. Continue nursery sowing of mid season cauliflower and planting of seedlings of onion. Continue planting of fruit plants such as citrus, litchi, mango, guava, loquat, ber, amla and papaya.
 - In Haryana, maintain 5-6 cm standing water upto maximum tillering stage in rice fields. Continue weeding in rice. Continue intercropping operations in guar, bajra and vegetables. For raising new orchards obtain good quality fruit plants from reliable source or nursery.
 - In Delhi, continue weeding and hoeing in all crops and vegetables and apply remaining dose of nitrogen on a non rainy day. Continue sowing of sarson saag (Pusa saag-1), radish (Versa kee rani, summer long, long chetaki), spinach (all green), coriander (pant Haritama, hybrids). Continue transplanting of chilli, brinjal, cabbage and cauliflower. Continue preparation of nurseries of cauliflower for mid season (Nov.-Dec.) and sowing of carrot on raised bed.
 - In Punjab, for control of sheath blight disease in rice, spray Amistar Top 325 SC @ 200ml/acre dissolved in 200 litres of water on a non rainy day.
 - In Delhi, in paddy crop constant monitoring of stem borer by using pheromone traps 4-6 per acre is advised, if insect population is above ETL, then broadcast Cartap 4% granules @ 10 kg/acre for effective control after current spells of rain.
- **Uttar Pradesh:**
 - In East Uttar Pradesh, apply the second and last top dressing dosage of Nitrogen in rice after current spells of rain. Undertake sowing of toria. Continue nursery sowing of cauliflower, cabbage, chilli and tomato, sowing of spinach, radish, carrot, turnip, beetroot, fenugreek, coriander, okra and cucurbits. Continue weeding and thinning in red gram, sesame, bajra and sorghum after current spells of rain. Continue planting of mango, ber, guava, lime etc. in new orchard. Continue picking up of matured brinjal and bottle gourd.
 - In West Uttar Pradesh, provide proper drainage in standing crop fields. Continue hoeing & weeding in all crops and vegetables, broadcast second split dose of nitrogen for optimum growth after current spells of rain.

Continue preparation of nurseries of cauliflower for mid season (Nov-Dec.). Continue picking up of matured cucurbits in clear weather. In Western Plain Zone, continue sowing of toria.

- In Central Plain Zone, for protection of yellow mosaic disease in soybean, spray Dimethoate 30 EC @ 1 litre/ha after current spells of rain.
- **Rajasthan:**
 - In East Rajasthan, continue sowing of radish. Undertake transplanting of mid season cabbage and cauliflower. Continue intercultural operations in cotton, moong, urad and thinning operation in pearl millet and sorghum, apply 40 kg N/ha through broadcasted urea before tasseling in maize after current spells of rain. Continue planting of fruit crops like mango, plum, pomegranate, aonla etc. Continue picking up of matured pods of cluster bean (guar). Continue transplanting papaya seedlings.
 - In West Rajasthan, apply irrigation and undertake earthing up in sugarcane. Maintain 4-5 cm water level in rice fields. Continue nursery preparation for cauliflower, cabbage chili and brinjal. Apply top dressing of nitrogen in standing pearl millet crop @ 30 kg/ha (in the form of urea @ 66 kg/ha). Continue planting new seedlings of kinnow in already prepared pits in the field.
 - In Semi Arid Eastern Plain Zone, due to continuous cloudy sky groundnut may be affected by leaf spot disease. In this disease brown to dark brown colour spots appear on leaves. Spray Bavistin @ 0.5 g or Mencozeb @ 2 g per litre of water after current spells of rain.
 - In Sub Humid Southern Plain and Aravali Hill Zone, for control of bollworm and jassids in cotton, apply Carbaryl 50% dust @ 2.5 kg/ha after current spells of rain.
- **Animal Husbandry**
 - In Jammu & Kashmir, provide supplementary mineral mixture with 50 gm iodized salt regularly to the milking and pregnant animals. Give vaccination against BQ and HS. Ensure green fodder to the livestock.
 - In Himachal Pradesh, give mixture of hay & green fodder to cattle. Weather is conducive for ticks and mites attack on animals. For control spray Butox @ 2.0 ml per litres of water.
- **Apiculture:**
 - In Jammu & Kashmir, inspect bee colonies. Undertake raising of new frames by providing comb foundation sheets to healthy colonies. Raise new queen if needed.
 - In Himachal Pradesh examine colonies for barroa mites. Dust sulphur on sealed brood in the colony and not on larvae to control mites attack on honeybees. For protection of ants put the legs of apiary into water so that ants could not attack apiary.

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