



# *National Agromet Advisory Service Bulletin*

*Friday 5<sup>th</sup> October 2018*  
*(For the period 5<sup>th</sup> to 10<sup>th</sup> October 2018)*



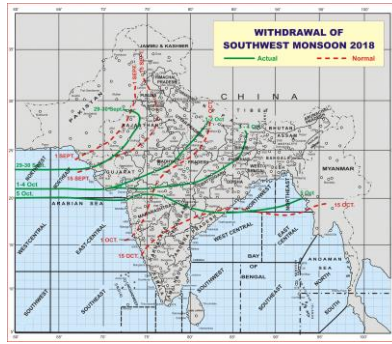
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*India Meteorological Department*

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

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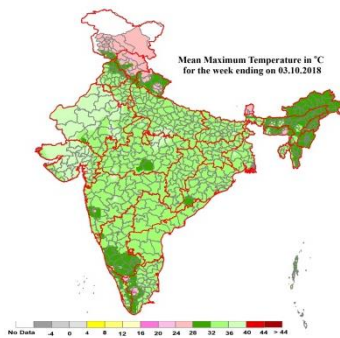
## Withdrawal of South West Monsoon 2018



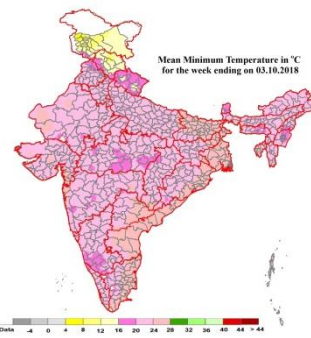
- Conditions are becoming favourable for further withdrawal of southwest monsoon from remaining parts of Central India, some parts of Peninsular India and some more parts of Arabian Sea during next 2-3 days. Subsequently southwest monsoon is likely to withdraw from remaining parts of the country and simultaneously northeast monsoon rains are likely to commence over Tamilnadu & Puducherry, Kerala and adjoining parts of Andhra Pradesh and Karnataka around 8<sup>th</sup> October.

### Spatial distribution of weather parameters for the week ending on 03.10.2018

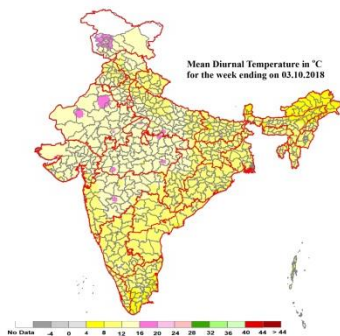
**Mean Maximum Temperature (°C) for the week ending on 03.10.2018**



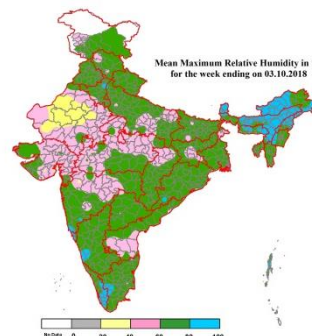
**Mean Minimum Temperature (°C) for the week ending on 03.10.2018**



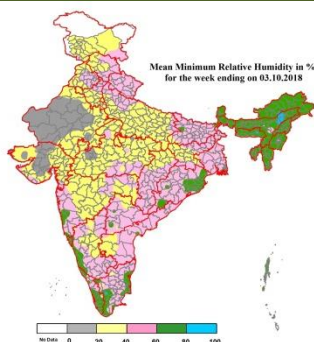
**Mean Diurnal Temperature Variation (°C) for the week ending on 03.10.2018**



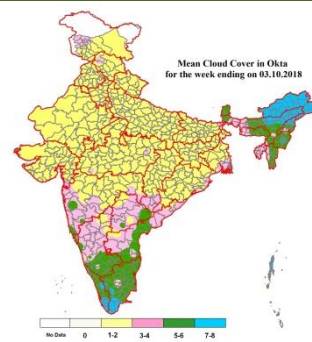
**Mean Maximum Relative Humidity (%) for the week ending on 03.10.2018**



**Mean Minimum Relative Humidity (%) for the week ending on 03.10.2018**

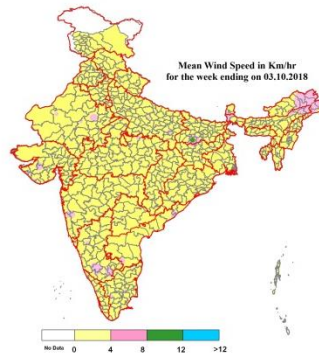


**Mean Cloud Cover (okta) for the week ending on 03.10.2018**

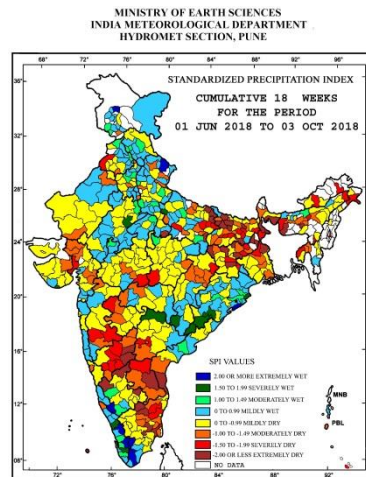




## Mean Wind Speed (km/hr) for the week ending on 03.10.2018

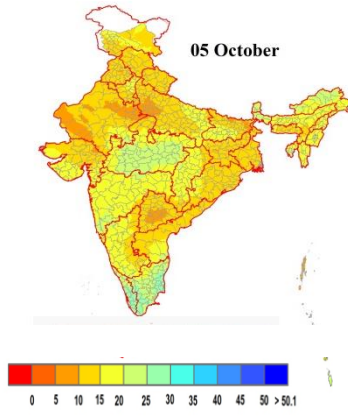


## Standardised Precipitation Index Cumulative 18 weeks for the period 1<sup>st</sup> June to 3<sup>rd</sup> October 2018

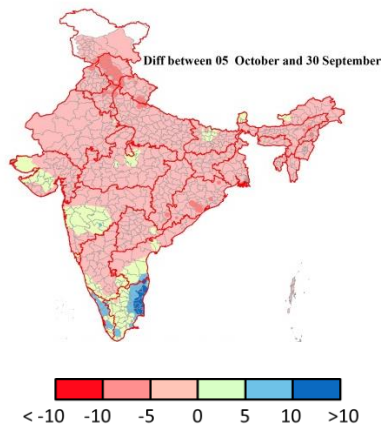
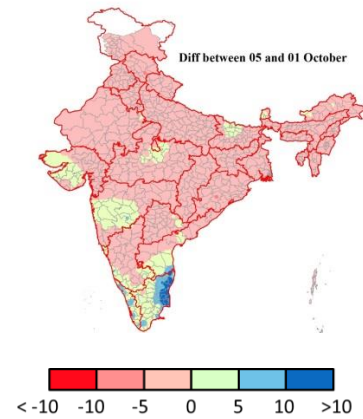
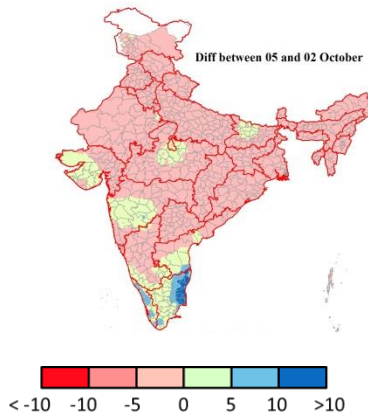
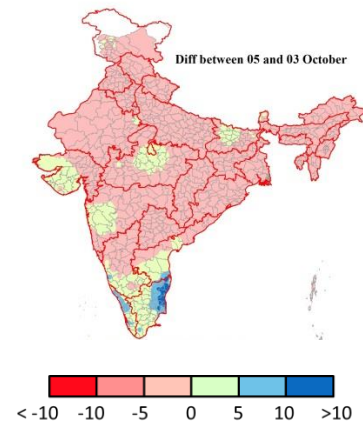
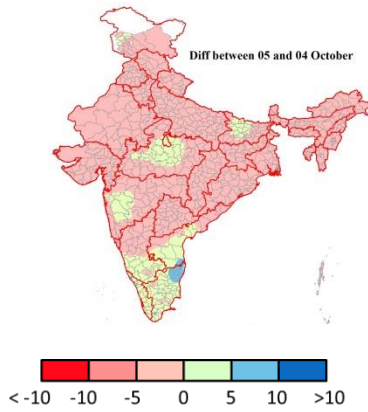


- Extremely/severely wet conditions experienced in Bandipore district of Jammu & Kashmir; Kendrapara, Koraput, Malkangiri, Puri, Rayagada districts of Odisha; Kannauj district of Uttar Pradesh; Chamoli district of Uttarakhand; Ropar district of Punjab; Sawai Madhopur district of Rajasthan; Diu districts of Saurashtra, Kutch & Diu; Bijapur district of Chhattisgarh; Adilabad district of Telangana; Theni, Tirunelveli districts of Tamil Nadu & Puducherry; Kodagu district of Karnataka; Malappuram, Palakkad, Idukki, Pathanamthitta districts of Kerala.
- Extremely/Severely dry conditions experienced in many districts of Meghalaya; few districts of Arunachal Pradesh; West Bengal; Jharkhand; Bihar; Karnataka; Dhubri, Morigaon, Tinsukia, Hailakandi districts of Assam; West Tripura district of Tripura; Azamgarh, Ballia, Chandauli, Deoria, Fatehpur, Kushi Nagar, Mau, Maharajganj, Mahoba districts of Uttar Pradesh; Ferozepur district of Punjab; Betul, Chhindwara districts of Madhya Pradesh; Ahmedabad district of Gujarat Region; Satara, Sholapur, Aurangabad districts of Maharashtra; Jashpur district of Chhattisgarh; Nellore, Cuddapah, Kurnool districts of Andhra Pradesh; Rangareddy district of Telangana; Dharmapuri, Nagapattinam, Thanjavur, Trichy, Tiruvannamalai, Viluppuram, Krishnagiri districts of Tamil Nadu & Puducherry; Lakshadweep district of Lakshadweep.
- Moderately dry conditions experienced in many districts of Tripura; few districts of West Bengal; Uttarakhand; Gujarat Region; Goalpara, Kamrup, Nagaon, Kamrup Metro., district of Assam; Giridih, Palamu, Jamtara districts of Jharkhand; Araria, Darbhanga, Gopalganj, Madhepura, Patna, Rohtas, Sheohar districts of Bihar; Balrampur, Gonda, Jaunpur, Kanpur Dehat, Kaushambi, Varanasi, Ghaziabad districts of Uttar Pradesh; Rohtak, Panchkula, Palwal districts of Haryana; Mansa district of Punjab; Udhampur district of Jammu & Kashmir; Jalore, Hanumangarh districts of Rajasthan; Dewas, Harda, Anuppur districts of Madhya Pradesh; Surendranagar district of Saurashtra, Kutch & Diu; South Goa district of Konkan & Goa; Sangli, Nandurbar, Beed, Jalna, Amraoti, Buldhana districts of Maharashtra; Bilaspur, Janjgir, Korba, Raigarh districts of Chhattisgarh; Prakasam, Anantapur, Chittoor districts of Andhra Pradesh; Mahabubnagar district of Telangana; Cuddalore, Namakkal, Salem, Tiruvarur, Vellore, Ariyalur districts of Tamil Nadu & Puducherry; Bidar, Gulbarga, Haveri districts of Karnataka; Kasargod district of Kerala.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

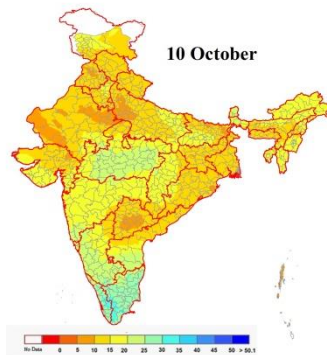
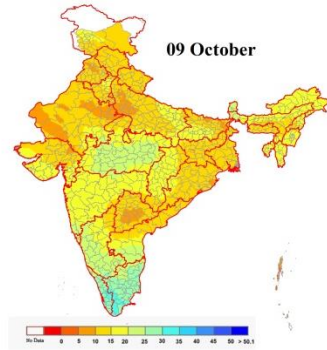
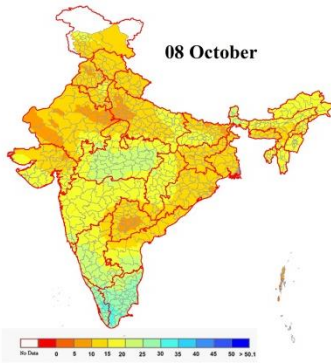
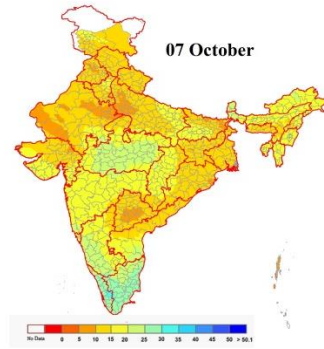
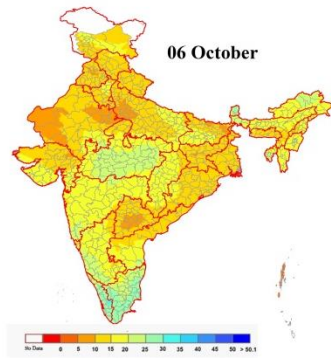
Daily Soil Moisture (mm) for 5<sup>th</sup> October 2018 (ending at 0830 IST) for 60 cm depth



Difference of Soil Moisture (mm) for 60 cm depth



**Forecasted Soil Moisture (mm) from 6<sup>th</sup> to 10<sup>th</sup> October 2018 (ending at 0830 IST)  
for 60 cm depth**



## Weather Forecast for next 5 days valid upto 0830 hours of 10<sup>th</sup> October 2018

- Meteorological subdivision wise detailed 5 days rainfall forecast is given in Table below.
- No significant change in maximum and minimum temperatures likely over most parts of the country during next 3-4 days.

### 5 Day Rainfall Forecast (Mid day) 5<sup>th</sup> October 2018

Met-Sub-Division	05-Oct Today	06Oct Sat	07Oct Sun	08Oct Mon	09Oct Tue
1. Andaman & Nicobar Islands	WS	WS	WS	WS	FWS
2. Arunachal Pradesh	DRY	DRY	ISOL	SCT	ISOL
3. Assam & Meghalaya	ISOL	DRY	ISOL	ISOL	ISOL
4. N. M. M. & T.	ISOL	DRY	DRY	ISOL	ISOL
5. S.H. West Bengal & Sikkim	ISOL	ISOL	ISOL	ISOL	DRY
6. Gangetic West Bengal	DRY	DRY	DRY	DRY	DRY
7. Odisha	DRY	DRY	DRY	DRY	DRY
8. Jharkhand	DRY	DRY	DRY	DRY	DRY
9. Bihar	DRY	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhnad	ISOL	DRY	DRY	DRY	ISOL
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	ISOL
14. Punjab	DRY	DRY	DRY	ISOL	SCT
15. Himachal Pradesh	ISOL	ISOL	DRY	ISOL	SCT
16. Jammu & Kashmir	SCT	ISOL	ISOL	SCT	FWS
17. West Rajasthan	ISOL	DRY	DRY	DRY	ISOL
18. East Rajasthan	ISOL	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
20. East Madhya Pradesh	DRY	DRY	DRY	DRY	DRY
21. Gujarat Region	ISOL	ISOL	ISOL	ISOL	ISOL
22. Saurashtra & Kutch	ISOL	ISOL	ISOL	ISOL	ISOL
23. Konkan & Goa	ISOL	ISOL	ISOL	ISOL	SCT
24. Madhya Maharashtra	ISOL	DRY	DRY	ISOL	ISOL
25. Marathawada	ISOL	DRY	DRY	DRY	DRY
26. Vidharbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	ISOL	ISOL	ISOL	ISOL	ISOL
29. Telangana	ISOL	ISOL	ISOL	ISOL	ISOL
30. Rayalaseema	ISOL	ISOL	ISOL	ISOL	ISOL
31. Tamilnadu & Puducherry	WS	WS	WS	WS	WS
32. Coastal Karnataka	WS	FWS	WS	WS	WS
33. North Interior Karnataka	ISOL	ISOL	ISOL	SCT	ISOL
34. South Interior Karnataka	FWS	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

- **05 October (Day 1):** Heavy to very heavy rain very likely at isolated places over Tamilnadu & Puducherry, Kerala and Lakshadweep & heavy rain at isolated places over coastal & South Interior Karnataka. Thunderstorm accompanied with lightning and gusty winds very likely at isolated places over Tamilnadu, Kerala, Coastal Andhra Pradesh, Telangana and Coastal Karnataka. Rough to very rough Sea conditions are likely to prevail over Comorin Lakshadweep areas and South east Arabian Sea. Fishermen are advised not to venture into these areas.
- **06 October (Day 2):** Heavy to very heavy rain likely at isolated places over Tamilnadu & Puducherry, Lakshadweep and Kerala and heavy rain at isolated places over Andaman & Nicobar Islands, Coastal & South Interior Karnataka. Thunderstorm accompanied with lightning and gusty winds very likely at isolated places over Tamilnadu, Kerala, Coastal Andhra Pradesh, Telangana and Coastal Karnataka. Rough to very rough Sea Conditions are likely to prevail over South & central Arabian Sea and Comorin Lakshadweep areas. Fishermen are advised not to venture into these areas. Andaman & Nicobar Islands, Coastal & South Interior Karnataka.
- **07 October (Day 3):** Heavy to very heavy rain with extremely heavy falls very likely at isolated places over Tamilnadu and Kerala and heavy to very heavy rain at isolated places over Lakshadweep and heavy rain at

isolated places over Andaman & Nicobar Islands, Coastal & South Interior Karnataka. Thunderstorm accompanied with lightning and gusty winds very likely at isolated places over Tamilnadu, Kerala, Coastal Andhra Pradesh, Telangana and Coastal Karnataka. Rough to very rough Sea conditions are likely to prevail over South & central Arabian Sea. Fishermen are advised not to venture into these areas.

- **08 October (Day 4):** Heavy to very heavy rain likely at isolated places over Tamilnadu & Puducherry and Kerala and heavy rain at isolated places over Andaman & Nicobar Islands and Coastal & South Interior Karnataka. Thunderstorm accompanied with lightning and hail storms likely at isolated places over Jammu & Kashmir and Himachal Pradesh. Rough to very rough Sea conditions are likely to prevail over South & central Arabian Sea. Fishermen are advised not to venture into these areas.
- **09 October (Day 5):** Heavy rain likely at isolated places over Tamilnadu & Puducherry and Kerala. Thunderstorm accompanied with lightning and hail storms likely at isolated places over Jammu & Kashmir and Himachal Pradesh. Rough to very rough Sea conditions are likely to prevail over South & central Arabian Sea. Fishermen are advised not to venture into these areas.

#### Weather Outlook for subsequent 2 days from 10<sup>th</sup> to 12<sup>th</sup> October 2018

- Fairly widespread to widespread rainfall likely over south peninsula, Andaman & Nicobar Islands and Lakshadweep.
- Scattered to fairly widespread precipitation likely over Western Himalayan region, isolated to scattered rainfall likely over northeastern States, west coast and over plains of northwest India. Dry weather likely over the rest of the country.

#### Salient Advisories

- The **low pressure area** formed over southeast Arabian Sea & neighbourhood, is very likely to become more marked during next 12 hours and concentrate into a Depression and move northwestwards during subsequent 24 hours. It is very likely to intensify into a Cyclonic Storm and move towards Oman Coast thereafter.
- Rough to very rough Sea conditions are likely to prevail over **South & central Arabian Sea** and **Comorin Lakshadweep** areas on 5<sup>th</sup> and 6<sup>th</sup>, over South & central Arabian Sea from 7<sup>th</sup> to 9<sup>th</sup> October. Fishermen are advised not to venture into these areas.
- As rain/thundershowers likely at most places over **Kerala** and **Tamil Nadu**, at most/many places over **Coastal Karnataka** and at many places over **South Interior Karnataka** during the period along with heavy to very heavy rain with extremely heavy falls very likely at isolated places over Tamilnadu and Kerala on 7<sup>th</sup>, heavy to very heavy rain very likely at isolated places over Tamilnadu & Puducherry and Kerala on 5<sup>th</sup>, 6<sup>th</sup>, and 8<sup>th</sup>, heavy rain at isolated places over Coastal & South Interior Karnataka from 5<sup>th</sup> to 8<sup>th</sup>, over Tamilnadu & Puducherry and Kerala on 9<sup>th</sup> October, 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. Keep harvested produce at safe places.
- As thunderstorm accompanied with lightning and gusty winds very likely at isolated places over **Tamilnadu, Kerala, Coastal Andhra Pradesh, Telangana** and **Coastal Karnataka** from 5<sup>th</sup> to 7<sup>th</sup>, provide support to banana, young fruit plants and staking in vegetables and undertake propping in sugarcane to prevent the crops from lodging due to strong winds. Keep the cattle indoor during thunderstorm period. Keep harvested produce at safe places.
- As thunderstorm accompanied with lightning and hail storms likely at isolated places over **Jammu & Kashmir** and **Himachal Pradesh** on 8<sup>th</sup> and 9<sup>th</sup> October, use hail net for orchard crops to protect from mechanical damage. Provide support to young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds and keep cattle indoor. Keep harvested produce at safer places.
- In **Marathwada**, continue harvesting of *kharif* soybean, sorghum and pearl millet. Continue land



preparation for sowing *rabi* chickpea and safflower. In **West Vidarbha**, continue sowing of safflower, linseed and chickpea.

- In **Himachal Pradesh**, continue harvesting of matured rice, maize and pulses. Continue field preparation for sowing of early mustard, gram and lentil in lower regions and planting of potato in lower and mid hill regions.
- In **East Madhya Pradesh**, as dry weather would prevail, continue harvesting of matured soybean and groundnut.

### *Detailed Agromet Advisories*

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

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala except Kasargod, all districts of Coastal Karnataka, Belgavi, Bidar, Dharwad and Haveri districts of North Interior Karnataka, Chamarajanagar, Chikkamagaluru, Davangere, Hasan, Kodagu, Mandya, Mysuru, Ramanagara, Shivamogga and Tumakuru districts of South Interior Karnataka, Prakasam district of Coastal Andhra Pradesh, Mahabubabad and Wanparthy districts of Telangana, Coimbatore, Dindigul, Erode, Kanyakumari, Karaikal, Karur, Madurai, Namakkal, Nilgiris Perambalur, Ramanathapuram, Sivaganga, Theni, Tirunelveli, Tirupur, Tiruvarur, Toothukudi and Virudhunagar districts of Tamil Nadu during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
  - As rain/thundershowers likely at most places over Kerala and Tamil Nadu, at most/many places over Coastal Karnataka and at many places over South Interior Karnataka during the period along with heavy to very heavy rain with extremely heavy falls very likely at isolated places over Tamilnadu and Kerala on 7<sup>th</sup>, heavy to very heavy rain very likely at isolated places over Tamilnadu & Puducherry and Kerala on 5<sup>th</sup>, 6<sup>th</sup>, and 8<sup>th</sup>, heavy rain at isolated places over Coastal & South Interior Karnataka from 5<sup>th</sup> to 8<sup>th</sup>, over Tamilnadu & Puducherry and Kerala on 9<sup>th</sup> October, 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. Keep harvested produce at safe places.
  - As thunderstorm accompanied with lightning and gusty winds very likely at isolated places over Tamilnadu, Kerala, Coastal Andhra Pradesh, Telangana and Coastal Karnataka from 5<sup>th</sup> to 7<sup>th</sup>, provide support to banana, young fruit plants and staking in vegetables and undertake propping in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places. Keep the cattle indoor during thunderstorm period.
  - Rough to very rough Sea conditions are likely to prevail over South & central Arabian Sea and Comorin Lakshadweep areas on 5<sup>th</sup> and 6<sup>th</sup>, over South & central Arabian Sea from 7<sup>th</sup> to 9<sup>th</sup> October. Fishermen are advised not to venture into these areas.
  - **Kerala:**
    - Regulate the shade in the pepper gardens. Provide mulching around coconut palms. As there will be thick deposition of silt at the base of the plant rake the soil followed by earthing up. Ensure aeration and drainage in banana field. Remove all the diseased and rotten leaves. Carry out land preparation of main field for the second paddy crop. Seed treatment with pseudomonas @ 10g/kg seed is recommended. Provide drainage in banana plantation. Prepare land for winter season vegetables. Take up new planting of areca nut.
    - Shoot and fruit borer affected parts in cowpea can be removed. Apply 5% Neem kernel suspension to control shoot and fruit borer in the initial stage. Spray Flubendamide 2ml/10L of water or Chlorantraniliprole 3 ml/10 litres of water if the attack is severe. Apply Indofil M 45 4g per litre of water on tapping panels in rubber. Apply Tilt @ 1ml per litre of water for sigatoka leaf spot in banana. Undertake plant protection measures after current spells of rain.
  - **Andhra Pradesh:**
    - In Coastal Andhra Pradesh, undertake land preparation and seed procurement for sowing of Rabi pulses.
    - In Rayalaseema, take up sowing of Rabi red gram varieties like LRG 52, ICPL 85063, ICP 8863, PRG 176 in left over fields in the district under assured irrigation. Procure seeds of high yielding Rabi chickpea varieties like NBeG 3, NBeG 47, and NBeG 49. Take up sowing after receiving sufficient rainfall.
    - In Coastal Andhra Pradesh, in paddy crop at transplanting to tillering stage, spray Monocrotophos @ 1.6 ml per litre of water for Thrips; Propiconazole @ 1.0 ml or Hexaconazole @ 2.0 ml/litre for sheath blight and Acepate @ 1.5 g or Quinalphos @ 2.0 ml/litre for leaf folder. For the control of the fall armyworm in maize crop, spray Chlorantraniliprole (coragen) @ 60ml/acre or Emamectin Benzoate @ 80 g/acre. In Rayalaseema, for semi looper incidence in castor, spray Acepate @1.5 g or Profenophos @ 2ml per litre. If sucking pest



incidence is observed in cotton, spray 0.4 ml of Imidachloprid (or) 0.2 g of Acetamiprid (or) 1.5g of Acephate (or) 1.6ml Monochrotophos per litre of water. Spray Monochrotophos@1.6 ml or Imidacloprid 0.3ml or Dimethoate @ 2 ml per litre of water for control of sucking pests in groundnut. Spray Chloripyriphos 2.5 ml or Cartap Hydrochloride @ 2 g per litre of water.

▪ **Telangana:**

- Take up sowing of Rabi groundnut under irrigated situation.
- Prevailing weather conditions are congenial for the incidence of pest and diseases in rice. To control hispa, spray Fipronil @ 2 ml per litre of water; for white fly, apply Triazophos @ 2 ml per litre of water. For pink boll worm in cotton, arrange pheromone traps @ 4 per acre for monitoring the pest; arrange Pheromone traps @ 10 per acre for moth trapping and if more than 8 moths are found in traps consecutively for 3 days, control it by spraying Profenophos @ 2 ml or Thiodicarb @ 1.5 g per litre of water. The prevailing dry weather conditions are congenial for incidence of sucking pests in vegetables. To control, spray Fipronil @ 2ml or Thiomethoxim @ 0.3g per litre of water.

▪ **Tamil Nadu:**

- For Thaladi season, ADT 38, ADT 46, ADT 49, Improved White Ponni, IR 20, ASD 19, TRY 1, TRY 3, CO 48, CO 49, CO 50, CO 52 and TKM 13 varieties are suitable. Seeds should be treated with *Pseudomonas fluorescens* @ 10 g/kg of seed before sowing to improve seed germination, seedling vigour and to control seed borne diseases. Provide propping to sugarcane and banana. Undertake sowing of rainfed sorghum, pulses, cotton and maize. Continue planting operations, especially vegetable crops like chilli, brinjal, gourd, banana and perennial crops.
- Stem borer incidence is being noticed in samba paddy fields. To manage this, spray Profenophos 50 E.C. @ 400ml/acre with 200 litres of water or 6 kg/acre of Cartap hydrochloride mix with equal quantity of sand after current spells of rain.

▪ **Karnataka:**

- In North Interior Karnataka, undertake sowing of rainfed wheat (Bijga yellow, DWR-137 (kiran), DWD-2006), continue sowing of Bengal gram (JG ICCV-10), sunflower, sorghum, chickpea, safflower, red gram crops. Complete harvesting of soybean.
- In South Interior Karnataka, undertake harvesting of matured groundnut crop after current spells of rain. Continue land preparation for sowing of *rabi* crops. In rice field, maintain 2.5 to 5 cm water level to reduce the weed infestation. Spray Planofix @ 1 ml /4.5 litres of water against flower drop in cotton after current spells of rain.
- In South Interior Karnataka, due to congenial weather condition rice crop affected by stem borer, leaf roller and sucking insects; to manage spray Chlorophyriphos or Ekalux @ 2 ml/litre of water after current spells of rain. 200 to 250 litres of spraying mixture is required per acre.

• **Animal Husbandry**

- In Kerala, de-worm the animals and birds and vaccinate them against infectious diseases as there are more chances of contagious disease during monsoon season. Take vaccination from nearby veterinary clinics.
- In Andhra Pradesh, vaccinate cattle against FMD and goat against blue tongue disease.
- In Karnataka, protect animals from rain. Maintain optimum room temperature in silkworm and poultry rearing houses. For milch animals, regularly follow schedule of 1 kg feed + 50 g mineral mixture per 2 litres of milk yield. Feed animals with a mixture of green grass + hay + minerals + dry feed like a khichri.

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

- **Realised Rainfall:** Rainfall occurred in East Siang, Kurung Kumey, Papumpare, Upper Siang, West Kameng and West Siang districts of Arunachal Pradesh, Baksa, Barpeta, Bongaigaon, Chirang, Dhemaji, Jorhat, Kamrup (Rural), Kokrajhar, Lakhimpur, Nalbari, Sonitpur and Udalgiri districts of Assam and in Aizawl district of Mizoram during the week. Weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Arunachal Pradesh:**

- Carry out harvesting of early transplanted matured *kharif* rice and Jhum rice. Maintain proper water level in normal transplanted rice. Provide mulching to large cardamom plants and uproot and burn plants affected with virus infection.
- For control of blast disease and gundhi bug in normal transplanted rice, apply need based alternate foliar spray of Hexaconazole 5 EC(2ml/l) & Carbendazim 12WP+Mancozeb 63WP(2g/litre) at 15days interval beginning from first appearance of the disease. Spray Dimethoate 30 EC @ 3ml/litre of water against aphids in cucurbits in clear weather.

▪ **Assam:**

- Continue sowing of *rabi* Maize upto the first fortnight of October. Prepare nursery bed for winter vegetables with application of cowdung @ 10 tonnes per ha of land and minimum application of chemical fertilizer.

Select well drained sandy loam soil for cultivation of tomato varieties like Punjab Chuhara, Punjab Kesri, Pusa ruby, Arka abha, Arka alok, BT-1 etc. Complete nursery sowing of onion seeds within the first fortnight of October. Take up nursery sowing of improved brinjal varieties and cauliflower @ 8-10gm/m<sup>2</sup> for mid season varieties like Improved Japanese, Pusa Synthetic, Pusa Snowball) and cabbage @10gm/m<sup>2</sup> for early varieties like Golden Acre, Pride of India, Pusa Mukta and late maturity varieties like Drum head.

- Current weather conditions favours incidence of false smut in Sali paddy. spray Blitox 50 @ 500 grams per acre at 10 days interval (2-3 times). If there is attack of hispa in Sali paddy, spray Chloropyrifos 20 EC or Quinalphos 25 EC @ 2.5-3 ml per litre of water. Use Trichocards @ 4 per acre for monitoring stem borer in maize crop.

- **Meghalaya:**

- Prepare nursery bed for sowing of cole crops, root crops and cucurbits. Continue sowing of French bean and cow pea. Keep ginger and turmeric fields weed-free. Harvest brinjal and chilli regularly. Maintain 5 cm of standing water in rice field. Keep the field free of weeds. Maintain Proper drainage in ginger and turmeric fields.
- Spray Hexaconazole @ 1ml/litre of water at 15 days interval foe sheath blight and sheath rot in Sali paddy.

- **Manipur:**

- Maintain 5-8 cm water level in paddy field. Harvest crop when 80% of spikelets become yellow. Harvest mature crop of black gram, rice bean, soybean and groundnut. and sundry for 2-3 days for better threshing. After threshing, sundry to attain optimum moisture for storage. Healthy seeds may be selected for seeds. Procure good quality seeds of onion, carrot, radish, coriander, cauliflower, cabbage, broccoli, potato, French bean, pea, broad bean, etc. Prepare land for sowing or planting.
- In the paddy field, spray Tricyclazole 75% @ 10g/15 litres of water for Neck Blast; Streptocycline @ 1g/15 litres of water (at least 5-6 pumps/sangam) for Bacterial Leaf Blight and Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water for aphids and mealy bugs.

- **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. Use rain cap while tapping a rubber plant.
- 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.

- **Tripura:**

- Carry out land preparation for sowing of sesamum, black gram and green gram. Avoid stagnation of water in groundnut field. Plan to cultivate early winter vegetables such as cabbage, radish, brinjal, etc. Nursery may be prepared in a land where chances of stagnation of water are less. In case of lowland, land preparation may be delayed for some time.
- 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 g per litre of water. Due to cloudy and humid weather there may be attack of Stem and Cob rot disease in maize crop. The combination of Trichoderma Viride (5ml per litre) and Seodomonous Flurensense (5ml per litre) may be applied to manage the attack.

- **Nagaland:**

- Undertake land preparation for Rabi maize. Continue field preparation for toria and mustard and make arrangement for quality seeds of varieties M-27, TS-36 and TS-38. Take up nursery bed preparation for vegetable crops like cabbage, tomato, radish and broccoli.
- For rice blast management in TRC/WRC paddy, destroy the infested residue, stubbles, grass and weeds present in the bunds of the field as they act as a source for the infection. Spray Carbendazim @1 g/litre. Repeat the spray at 15 days interval based on the severity of disease. For bacterial blight infestation, spray Streptocycline 2g/5 litres of water.

- **Animal Husbandry**

- Provide adequate water with added vitamin C to poultry birds. Maintain proper ventilation. Fumigate poultry huts. Maintain hygiene. Protect birds from rain.
- In case of goats affected with contagious ecthyma or ORF, wash the affected area with Potassium Permanganate solution twice daily. Then apply glycerin and boric acid paste. Contact nearest veterinarian for more information.

- Go for normal vaccination schedule against Ranikhet and Gumboro diseases in Broiler. Monitor the flock periodically against any kind of diseases. Vaccinate pigs against FMD & swine fever and cattle/sheep/goat against FMD, Hemorrhagic Septicaemia, Black Quarter, etc.
- **Fishery**  
During the winter season, fish are affected with EUS disease. In order to prevent the disease, apply 10kg of lime and 1kg of Turmeric powder in pond with one bigha water area.

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

- **Realised Rainfall:** Rainfall occurred in North & Middle Andaman district of Andaman & Nicobar Islands, Gajapati district of Odisha, Darjeeling, East Sikkim, North Sikkim and Jalpaiguri districts of Sub-Himalayan West Bengal & Sikkim during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
  - **Odisha:**
    - Continue sowing of pulses like moong, urd, horse gram etc. Complete the sowing of sesamum as early as possible taking the advantage of recent rainfall. Complete intercultural operations in groundnut before the start of pegging stage.
    - Maintain water level upto 5cm in rice fields. Apply Nitrogen split in the form of urea @ 43kg/ha in rice at tillering/panicle initiation stage. In case of stem borer infestation, apply Rynaxypyr 20 SC @ 0.3ml/litre or Cartap hydrochloride 50 SP @ 1.25g/litre of water or Acephate 75 SP @ 1.5g/litre of water. Brown Plant Hopper and Bacterial leaf blight incidence are observed in few areas. Apply Pymetrozine 50WP @ 0.6 g/litre of water for control of Brown Plant Hopper and for Bacterial leaf blight, spray 400 g Copper Oxy-Chloride + 200 g Plantomycin mixed in 200 litres of water and spray twice at an interval of 15 days.
    - Cotton crop is at boll formation to boll development (eleven to thirteen week) stage. There is chance of attack of sucking pest like jassids and thrips. Monitor the crops and spray Buprofezin 25% SC 400 ml @ 2ml/litre of water if attack is noticed. For monitoring movement of boll worms, fix five pheromone traps per acre in the crop fields.
  - **Bihar:**
    - Continue harvesting of matured *kharif* maize. Prepare the fields and undertake sowing of early potato and toria.
    - The weather conditions are highly favourable for infection of bacterial blight disease and blast disease in rice. Monitoring at 2-3 days interval is advised. For control of bacterial blight, apply Streptocycline 50 g + Copper oxychloride 2.5 kg/ha dissolved in 1000 litres of water and spray at 12 days interval and for control of blast disease, spraying of Bavistin 2 g/litre of water at an interval of 10 day is advised.
    - In orchards, spray Chlorpyrifos @ 2ml per litre of water if there is attack of termite. Remove weeds from new planted tree area and apply nitrogenous fertilizer (30 g urea/plant).
  - **Jharkhand:**
    - After harvesting of different *kharif* crops, immediately undertake field preparation utilizing the residual soil moisture and sow rabi crops like toria, rainfed wheat, table pea and potato with assured irrigation facility. Farmers having 3 - 4 irrigation facility, may proceed for cultivation of rainfed wheat, potato and table pea. And those who have only 2 - 3 irrigation facility may proceed for toria cultivation. If the field is heavily infested with termites, seed should be treated with insecticide Chlorpyrifos 20 E. C. before sowing. Farmers may also use Lindane dust @ 10 kg per acre in line at the time of seeding.
    - Medium duration rice crops are at milking to grain filling stage and this stage is sensitive to moisture stress. Maintain optimum moisture in the rice fields. In some pocket, rice crops are attacked by rice hispa. These insects can be seen near the root zone of the affected plant as a brown fly size insect. To control the insects spray the insecticides Chlorpyrifos @ 3 ml per litre of water.
    - 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.
  - **West Bengal:**
    - In Sub-Himalayan West Bengal, undertake harvesting of mature capsules of large cardamom. Continue preparation of seed bed for early winter vegetables crops. Continue harvesting round chilli. Carry out earthing up, weeding and draining out water from the ginger and turmeric fields.
    - In Gangetic West Bengal, keep 2-3 inch water level in the Aman paddy field and carry out periodic weeding. Arrange for tight fencing with bamboo sticks and paddy straw in betel vine garden at growing leaf stage. Provide staking to the seedlings of early winter vegetables and keep nursery beds weed free. Prepare field for planting pointed gourd.
    - 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 white fly and jassid in bhindi and brinjal crops, apply Acetamiprid 20% SP @ 1g or Thiomithoxam 0.3 SG @ 1g/3litres of water. 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. Carry out careful roguing and destruction of infected ginger and turmeric plants.

- In Gangetic West Bengal, for leaf roller in Aman paddy, spray Chlorpyrifos 1.5 ml/litre of water. For stem borer attack, apply Triazophos @ 1.5 ml/litre of water.

- **Andaman & Nicobar Islands:**

- As rain/thundershowers likely at most/many places over Andaman & Nicobar islands during the period along with heavy rain at isolated places on 6<sup>th</sup> to 8<sup>th</sup> October, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- In the Andaman Islands, spray Cypermethrin 10 % EC (Ustad @ 2 ml/10 litres of water) to control Gandhi bug in early transplanted rice if chaffy panicles are noticed. Spray Carbaryl @ 2 g/litre of water to control fruit and shoot borer in brinjal. Undertake plant protection methods after current spells of rain.
- In Nicobar Islands, avoid fertilizers application in vegetable crops as rainfall is expected during this period.

- **Animal Husbandry**

- In West Bengal, for foot and mouth disease in cattle, wash the wound with potassium permanganate solution. Vaccinate cattle against FMD. Keep the cow shed clean and dry. Clean and disinfect the cowshed with bleaching powder. Provide any gut acting antibacterial along with remonetric preparation to cattle suffering from non-specific diarrhoea due to water borne infections. 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. Vaccinate poultry birds against Ranikhet disease.
- In Andaman & Nicobar Islands, keep the animal shed clean to avoid infectious diseases to the farm animal.
- 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.
- In Odisha, apply Raw Cow Dung (RCD) @ 1000kg/acre of pond size. After 5 days of application of RCD apply 30 kg of DAP/acre and then after 3 days of application of DAP stocking should be done @ 2000 yearlings/ac OR fingerlings @ 3000/acre OR Fry @ 8000/acre of pond size.

### WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rainfall occurred in Raigad, Ratnagiri and Sindhudurg districts of Konkan & Goa, Kolhapur, Sangli and Satara districts of Madhya Maharashtra, during the week. Weather remained mainly dry/dry over rest of the region.

- **Advisories:**

- **Maharashtra:**

- In South Konkan, maintain water level of 5-10 cm in rice field. In North Konkan, continue harvesting of early rice varieties in morning hours and follow immediate threshing of rice; the threshed grains should be dried in sun for 3 to 4 days. Apply 3<sup>rd</sup> split dose of fertilizer @ 32.5 kg N/ha (Urea 71 kg /ha) to the late rice varieties (flowering stage) on a non-rainy day. Apply protective irrigation to vegetables and orchards.
- In Madhya Maharashtra, in rice fields, maintain water level of 5 to 10 cm. Continue sowing of *rabi* sorghum and chickpea. Undertake preparatory tillage for sowing of wheat. Continue harvesting of matured soybean and pearl millet. Continue preparatory tillage operations for *rabi* sorghum, gram and safflower.
- In Marathwada, apply protective irrigation to groundnut, sugarcane, vegetables and orchards. Continue harvesting of *kharif* soybean, sorghum and pearl millet. Dry soybean for one to two days then undertake threshing. Undertake land preparation for sowing of wheat, chick pea and safflower.
- In West Vidarbha, continue harvesting of short duration matured soybean. Continue sowing of safflower, linseed and chickpea. In East Vidarbha, maintain water level 5 to 10 cm in rice fields. Continue harvesting of matured soybean.
- In Vidarbha, for control of sap sucking pest (aphid, jassids, thrips, white fly) in cotton, spray Azadirachtin 0.15% (1500 ppm) @ 25 ml or Azadirachtin 0.03% (300 ppm) @ 50 ml or Buprofezin 25% SC @ 20 ml or Imidachloprid 17.8% @ 2.5 ml or Fipronil 5% SC @ 35 ml per 10 liters water.
- In Konkan, to control leaf eating caterpillar in vegetables, spray Malathion @ 2 ml or Dimethoate @ 1.5 ml per litre of water on a non-rainy day.

- **Gujarat:**

- In Saurashtra & Kutch, carry out field preparation for sowing of *rabi* sorghum, garlic, chickpea where sesame/pearl millet/pulses crops have been harvested and where irrigation facility is available. Wherever possible, undertake mulching using dry grass, crop residues etc. Apply irrigation to the standing crops as per availability and crop stage. In areas of severe dry spell, spray 2% Potassium Nitrate @ 2kg in 100 litres of



water in standing crops. Continue intercultural operations in castor and vegetable crops to conserve soil moisture. Use light trap to keep a check on pest population. Complete harvesting of groundnut, bajara, green gram and other crops.

- In North Gujarat, complete harvesting of bajra, maize and picking of cow pea and green gram. Apply irrigation in fennel and vegetable crops as per need.
- In South Gujarat, undertake planting of sugarcane crop. Carry out mulching in vegetable crops using fodder/plastic mulch to conserve moisture. Apply irrigation in pulses as per need.
- In Middle Gujarat, undertake harvesting of pearl millet crop and intercultural operations in cotton, castor, cluster bean and vegetable crops. Apply irrigation in cluster bean crop.
- In North Gujarat, present temperature and humidity conditions favour infestation of thrips, jassid and mealy bug in cotton; to control, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water in clear weather.
- **Animal Husbandry**
  - In Gujarat, provide adequate food to livestock and keep the animal shed clean.

### CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Weather remained mainly dry/dry over the region during the week.
- **Advisories:**
  - **Madhya Pradesh:**
    - In West Madhya Pradesh, continue nursery preparation for cauliflower and cabbage. Continue harvesting of pearl millet, green gram, black gram, soybean and vegetables. Continue transplanting of new saplings of orchards. In Central Narmada Valley Zone, continue sowing of mustard, toria and safola. Continue field preparation for sowing of early pea.
    - In East Madhya Pradesh, continue harvesting of matured soybean and groundnut. Undertake sowing of gram, mustard and toria. Continue planting of horticultural crops like papaya, mango, guava etc. In Bundelkhand Zone, continue transplanting of tomato, chilli, brinjal, cauliflower and cabbage. Continue sowing of radish, fenugreek, spinach, mustard, coriander and turnip. Keep inputs ready for seedbed preparation of onion and planting of potato.
    - In Kymore Plateau and Satpura Hill Zone, apply irrigation in rice. Undertake harvesting of soybean. Continue nursery preparation for early season *rabi* vegetables. Undertake sowing of pea.
    - In Jhabua Hill Zone, to control of root rot & anthracnose disease in soybean spray Carbendazim+ Mencozeb @ 2 g/litre of water or Propiconazole @ 1g/litre of water.
    - In Satpura Plateau Zone, to control infection of sucking pest in cotton, spray Thymethoxzon @ 0.25 g/litre of water or Imidacloprid @ 0.5 ml/litre of water.
  - **Chhattisgarh:**
    - Undertake transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. Continue harvesting of matured crops like mung, urad, maize, rice, groundnut, finger millet etc. Continue sowing of *rabi* crops like gram, linseed, lentil, toria, mustard, green pea and potato and arrange seeds & fertilizer for cultivation of rainfed wheat, if having assured irrigation facility. Continue planting of banana, papaya, mango, guava etc. In Plain Zone, continue sowing of carrot and turnip. Undertake seed bed preparation for onion.
    - In Bastar Plateau Zone, continue harvesting of early varieties of rice. Continue sowing of toria. Continue nursery preparation for papaya and custard apple. Continue planting of improved varieties of grafted cashew nut plant (Indira kaju-1, Vengurla-4, Vengurla-7, Vengurla-9 etc).
    - For control of attack of blast disease in rice crop, spray Tricyclazole @120 g per acre and the spray should be repeated after 10-12 days as per requirement.
- **Animal Husbandry**
  - In Madhya Pradesh, 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:** Weather remained mainly dry/dry over the region during the week.
- **Advisories:**
  - As thunderstorm accompanied with lightning and hail storms likely at isolated places over Jammu & Kashmir and Himachal Pradesh on 8<sup>th</sup> and 9<sup>th</sup> October, use hail net for orchard crops to protect from mechanical damage. Provide support to young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds and keep cattle indoor. Keep harvested produce at safer places.

- **Jammu & Kashmir:**
  - As rain/thundershowers likely at many places over Jammu & Kashmir on 9<sup>th</sup> October, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
  - Continue harvesting of early maturing varieties of rice and maize in clear weather. Continue sowing of toria, methi, spinach beet, coriander, radish, carrot, beet root and spinach. Continue planting of potato. Continue picking up of matured pods of green gram. Continue transplanting of cole crops. Continue nursery sowing of *rabi* vegetables. Continue picking up of matured tomato, brinjal, capsicum, okra and broccoli.
  - In Valley Temperate Zone, continue harvesting of matured rice crop, green cobs of maize, pulses and matured sunflower, apple and pear. Continue nursery sowing of onion.
  - To control the attack of shoot and fruit borer in brinjal, spray Dimethoate 30 EC @ 1ml/litre of water on a non rainy day.
- **Uttarakhand:**
  - Undertake harvesting of early and medium varieties of rice. Continue sowing of toria, pea, radish, broccoli and turnip. Undertake field preparation for planting of early varieties of potato. Continue transplanting of cabbage and cauliflower. Continue picking up of matured cucurbits and vegetables like tomato, capsicum, chilli and apple. Continue planting of orchards like mango, guava, lemon, papaya, litchi etc. Sowing of winter season sugarcane crop should be done up to 15<sup>th</sup> October.
  - In Hill Zone, continue sowing of pea and toria. Continue sowing of radish, carrot, turnip, leafy vegetables like mustard, fenugreek, spinach etc. Continue nursery sowing of onion. Undertake cultivation of mushroom.
  - To control leaf blight disease in maize crop, spray Mancozeb @ 2.5g/litre of water.
- **Himachal Pradesh:**
  - Continue harvesting of matured rice, maize and pulses. Continue field preparation for sowing of early mustard and pea in lower regions and planting of potato in lower and mid hill regions at optimum soil moisture conditions. Complete sowing of gram and lentil in lower regions. Undertake sowing of early varieties of wheat during first fortnight of October. Undertake weeding and hoeing in tomato, brinjal, chilli and capsicum. Continue sowing of turnip and radish in lower rainfed areas. In mid hill region continue nursery sowing of Chinese cabbage and direct sowing of raddish, carrot, broccoli and lettuce.
  - In Mid Hills Sub-Humid Zone, continue sowing of pea, garlic, radish, carrot, turnip and nursery preparation for cauliflower and cole crops.
  - To control white fly and sucking pest in vegetables spray Imidacloprid @ 1 ml/3litres of water.
- **Punjab, Haryana & Delhi:**
  - In Punjab, apply irrigation in rice, vegetables and fruit crops. Undertake harvesting of matured maize. Continue planting of early varieties of potato and pea and sowing of spinach, radish, turnip and carrot. Undertake planting of early varieties of sugarcane. Continue nursery sowing of mid season cauliflower and planting of seedlings of onion. Undertake nursery sowing of tomato. Continue planting of fruit plants such as citrus, litchi, mango, guava, loquat, ber, amla and papaya. Continue picking up of matured cotton bolls.
  - In Haryana, continue intercultural operations in vegetables. Continue field preparation for sowing of mustard. For raising new orchards obtain good quality fruit plants from reliable source or nursery. Continue harvesting of timely sown bajra, guar, green gram, black gram and picking up of matured cotton bolls.
  - In Delhi, continue sowing early mustard and planting of early potato. Continue sowing of early pea. Continue transplanting of onion. Continue sowing of sarson saag (Pusa saag-1), radish (Versa kee rani, summer long, long chetaki), spinach (all green), coriander (pant Haritama, hybrids). Undertake transplanting of cauliflower, cabbage, broccoli and tomato. Continue sowing of carrot on raised bed. Undertake field preparation for sowing of *rabi* crops.
  - In Punjab, for control of sheath blight disease in rice, spray Amistar Top 325 SC @ 200ml/acre dissolved in 200 litres of water.
  - In Delhi, there are chances of attack of stem borer in rice, if population of stem borer is above ETL then broadcast Cartap 4% granules @ 10 kg/acre.
- **Uttar Pradesh:**
  - In East Uttar Pradesh, continue sowing of toria. Continue field preparation for planting of potato and pea and undertake planting of potato and sowing of pea under optimum soil moisture conditions. Continue harvesting of matured maize, sesame, green gram and black gram. Apply irrigation in rice. Undertake transplanting of cauliflower, cabbage, chilli and tomato. Continue sowing of spinach, radish, carrot, turnip, beetroot, fenugreek, coriander, okra and cucurbits. Continue planting of mango, ber, guava, lime etc. in new orchard. Continue picking up of matured brinjal and bottle gourd.
  - In West Uttar Pradesh, undertake transplanting of cauliflower, cabbage, chilli, broccoli and tomato. Continue sowing of carrot on raised bed. Continue sowing of sarson saag, radish, coriander, spinach and fenugreek. Continue transplanting of onion in prepared fields. Continue sowing of toria and planting of early varieties of potato. Undertake harvesting of matured vegetables. Undertake sowing of pea under optimum soil moisture conditions.

▪ **Rajasthan:**

- In East Rajasthan, undertake field preparation for sowing of *rabi* crops. Continue sowing of radish and carrot. Continue nursery preparation for *rabi* vegetables like chilli, brinjal and tomato. Continue transplanting of mid season cabbage and cauliflower. Continue field preparation for sowing of early pea, Taramira and mustard. Continue planting of fruit crops like mango, plum, pomegranate, aonla etc. Continue harvesting of matured maize, black gram and soybean. Continue picking up of matured pods of cluster bean (guar), green gram, moth bean and cowpea. In Sub Humid Southern Plain and Aravali Hill Zone, continue sowing of mustard and gram.
- In West Rajasthan, continue harvesting of early moong, moth bean and cluster bean. Continue sowing of radish, turnip and carrot. Continue field preparation for sowing of Taramira, gram and mustard. Continue transplanting of cauliflower and cabbage. Apply irrigation in groundnut and cotton. In Irrigated North Western Plain Zone, continue picking up matured cotton bolls. Undertake sowing of mustard.
- **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.
- **Apiculture:**
- In Jammu & Kashmir, prepare colonies for upcoming winter season. Kill wasps with a wooden flap. Provide sugar feeding/artificial diet. Sulphur dusting @ 1g/frame for mite management is recommended. Soak pads in formalin in the ratio of 2:1(water) for mite control. Protect bee hive from ants.

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