



# *National Agromet Advisory Service Bulletin*

*Friday 28<sup>th</sup> September 2018*

*(For the period 28<sup>th</sup> September to 3<sup>rd</sup> October 2018)*



*Issued by*

*India Meteorological Department*

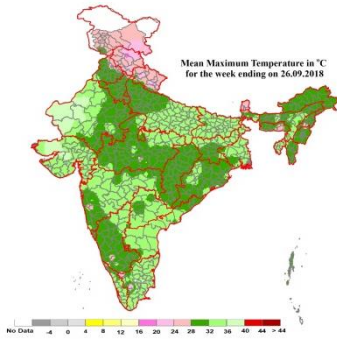
**Weblink For**

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

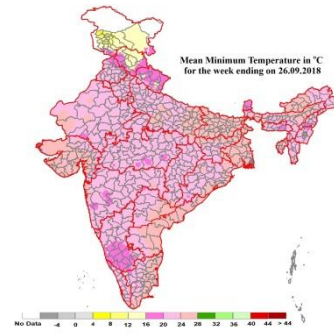
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

**Spatial distribution of weather parameters for the week ending on 26.09.2018**

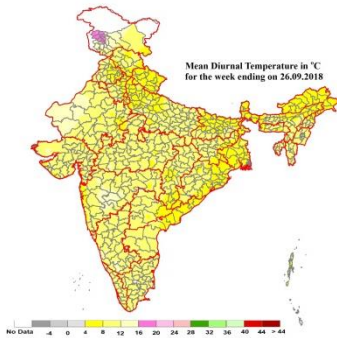
**Mean Maximum Temperature (°C) for the week ending on 26.09.2018**



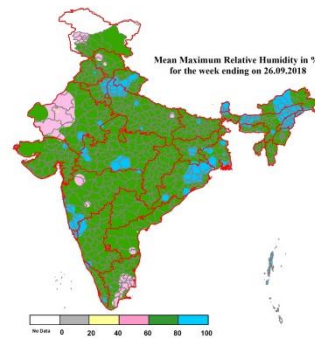
**Mean Minimum Temperature (°C) for the week ending on 26.09.2018**



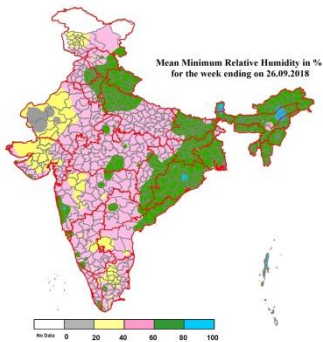
**Mean Diurnal Temperature Variation (°C) for the week ending on 26.09.2018**



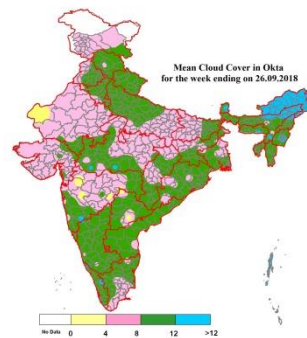
**Mean Maximum Relative Humidity (%) for the week ending on 26.09.2018**



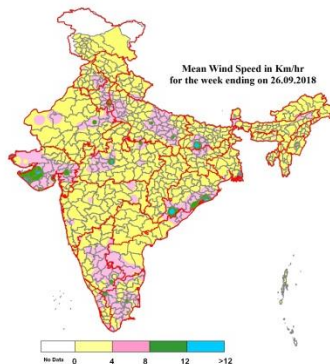
**Mean Minimum Relative Humidity (%) for the week ending on 26.09.2018**



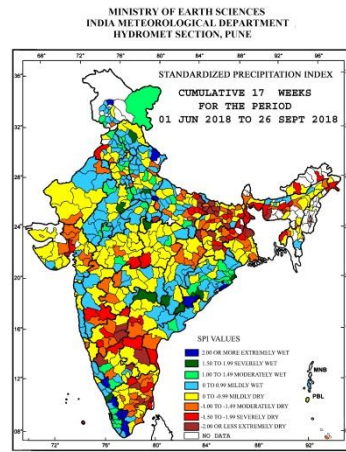
**Mean Cloud Cover (okta) for the week ending on 26.09.2018**



**Mean Wind Speed (km/hr) for the week ending on 26.09.2018**

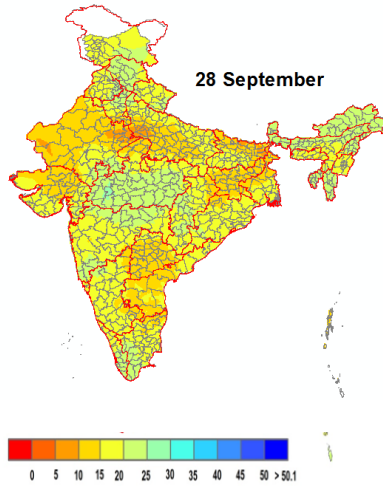


## Standardised Precipitation Index Cumulative 17 weeks for the period 1<sup>st</sup> June to 26<sup>th</sup> September 2018

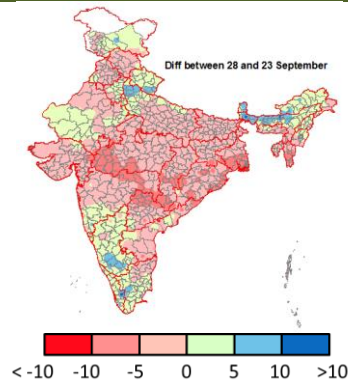
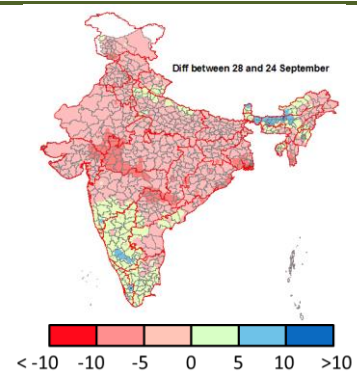
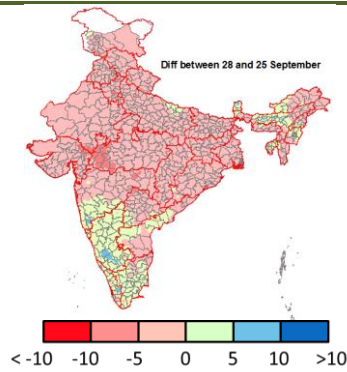
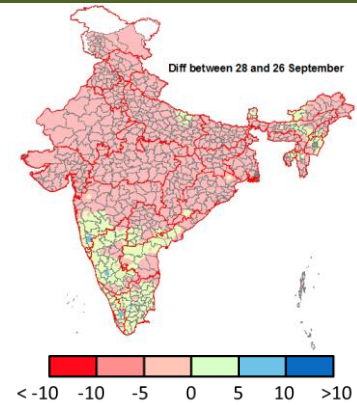
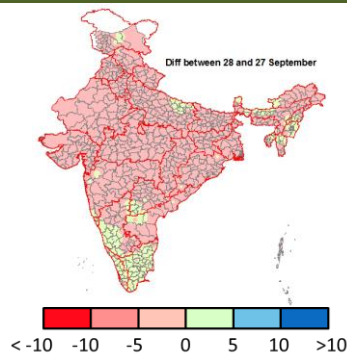


- Extremely/severely wet conditions experienced in Bandipore district of Jammu & Kashmir; Kendrapara, Koraput, Malkangiri, Puri, Rayagada districts of Odisha; Kannauj, Etah districts of Uttar Pradesh; Chamoli district of Uttarakhand; Ropar district of Punjab; Kullu district of Himachal Pradesh; Sawai Madhopur district of Rajasthan; Tikamgarh district of Madhya Pradesh; Diu district 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 districts of Kerala.
- Extremely/Severely dry conditions experienced in many districts of Meghalaya; few districts of Arunachal Pradesh; West Bengal; Jharkhand; Bihar; Kamrup, Dhubri, Morigaon districts of Assam; West Tripura district of Tripura; Imphal East district of Manipur; Azamgarh, Ballia, Chandauli, Deoria, 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 districts of Maharashtra; Nellore, Cuddapah, Kurnool districts of Andhra Pradesh; Rangareddy district of Telangana; Dharmapuri, Nagapattinam, Thanjavur, Trichy, Tiruvarur, Viluppuram, Krishnagiri, Karaikal districts of Tamil Nadu & Puducherry; Bagalkote, Bidar, Dharwad, Raichur, Yadgir, Bellary, Shimoga, Chickballapur districts of Karnataka; Lakshadweep district of Lakshadweep.
- Moderately dry conditions experienced in few districts of Assam; West Bengal; Gujarat Region; Tamil Nadu & Puducherry; Dhalai district of Tripura; Giridih, Palamu, Jamtara districts of Jharkhand; Araria, Darbhanga, Gopalganj, Madhepura, Monghyr, Nalanda, Patna, Rohtas districts of Bihar; Balrampur, Fatehpur, Gonda, Jaunpur, Kanpur Dehat, Varanasi, Ghaziabad districts of Uttar Pradesh; Rohtak, Panchkula, Palwal districts of Haryana; Almora, Udham Singh Nagar, districts of Uttarakhand; Mansa district of Punjab; Udhampur district of Jammu & Kashmir; Jalore, Hanumangarh districts of Rajasthan; Dewas, Anuppur districts of Madhya Pradesh; Surendranagar district of Saurashtra, Kutch & Diu; South Goa district of Konkan & Goa; Sangli, Nandurbar, Aurangabad, Beed, Buldhana districts of Maharashtra; Bilaspur, Janjgir, Jashpur, Raigarh districts of Chhattisgarh; Prakasam district of Andhra Pradesh; Mahbubnagar district of Telangana; Bijapur, Gadag, Haveri, Koppal, Hassan districts of Karnataka.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

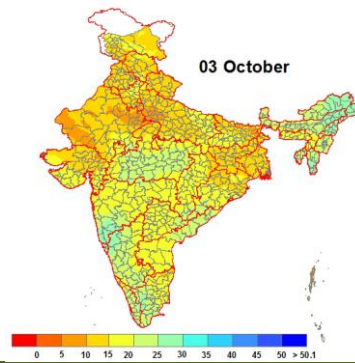
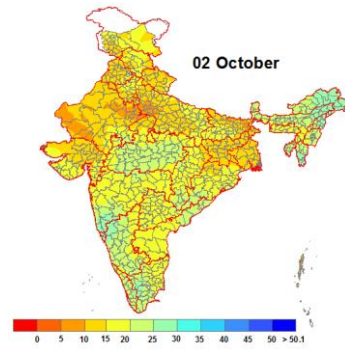
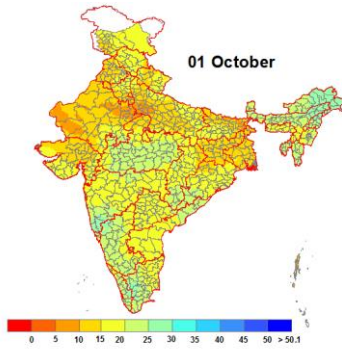
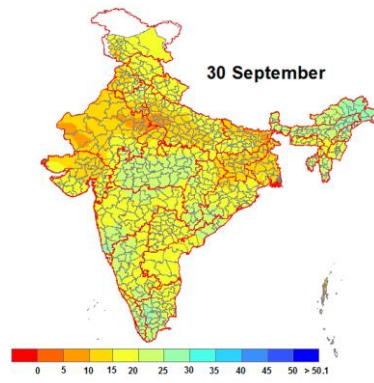
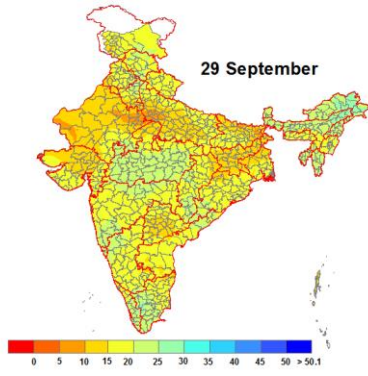
# Daily Soil Moisture (mm) for 28<sup>th</sup> September 2018 (ending at 0830 IST) for 60 cm depth



## Difference of Soil Moisture (mm) for 60 cm depth



**Forecasted Soil Moisture (mm) from 29<sup>th</sup> September to 3<sup>rd</sup> October 2018 (ending at 0830 IST)  
for 60 cm depth**



## Weather Forecast for next 5 days valid upto 0830 hours of 3<sup>rd</sup> October 2018

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

### 5 Day Rainfall Forecast (Mid day) 28<sup>th</sup> September 2018

Met-Sub-Division	28-Sep Today	29Sep Sat	30Sep Sun	01Oct Mon	02Oct Tue
1. Andaman & Nicobar Islands	SCT	FWS	FWS	SCT	SCT
2. Arunachal Pradesh	FWS	FWS	FWS	FWS	SCT
3. Assam & Meghalaya	SCT	SCT	SCT	FWS	SCT
4. N. M. M. & T.	SCT	SCT	ISOL	SCT	SCT
5. S.H. West Bengal & Sikkim	FWS	SCT	SCT	SCT	SCT
6. Gangetic West Bengal	SCT	ISOL	ISOL	DRY	DRY
7. Odisha	SCT	ISOL	ISOL	ISOL	ISOL
8. Jharkhand	ISOL	ISOL	DRY	DRY	DRY
9. Bihar	ISOL	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhand	ISOL	DRY	DRY	DRY	DRY
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	ISOL	DRY	DRY	DRY	DRY
16. Jammu & Kashmir	ISOL	ISOL	ISOL	ISOL	ISOL
17. West Rajsthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	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	DRY	DRY	ISOL	ISOL	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	SCT	SCT	SCT	ISOL	ISOL
24. Madhya Maharashtra	SCT	ISOL	ISOL	ISOL	ISOL
25. Marathwada	ISOL	ISOL	DRY	DRY	DRY
26. Vidharbha	ISOL	ISOL	DRY	DRY	DRY
27. Chhattisgarh	ISOL	ISOL	ISOL	ISOL	ISOL
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	FWS	SCT	SCT	ISOL	SCT
32. Coastal Karnataka	WS	FWS	FWS	SCT	SCT
33. North Interior Karnataka	SCT	SCT	ISOL	ISOL	SCT
34. South Interior Karnataka	FWS	FWS	FWS	SCT	SCT
35. Kerala	FWS	FWS	FWS	SCT	SCT
36. Lakshadweep	SCT	FWS	FWS	SCT	ISOL

#### % Station Reporting Rainfall

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

#### Weather Warning during next 5 days

- **28 September (Day 1):** Heavy rain at isolated places very likely over Sub-Himalayan West Bengal & Sikkim, Tamilnadu, Kerala and South interior Karnataka. Thunderstorm accompanied with lightning very likely at isolated places over Jharkhand, Odisha, West Bengal & Sikkim, Assam & Meghalaya, Madhya Maharashtra, Konkan & Goa, Tamilnadu, Interior Karnataka, Coastal Andhra Pradesh, Vidarbha and south Chhattisgarh. Rough to very rough Sea conditions are likely to prevail over Andaman & Nicobar Islands, South Tamilnadu, Kerala, Lakshadweep, Karnataka, Maharashtra, Gujarat coasts.
- **29 September (Day 2):** Heavy rain at isolated places very likely over Lakshadweep, Tamilnadu, Kerala and South interior Karnataka. Thunderstorm accompanied with lightning very likely at isolated places over Madhya

Maharashtra, Tamilnadu and South Interior Karnataka. Rough to very rough Sea conditions are likely to prevail over Andaman & Nicobar Islands, South Tamilnadu, Kerala, Lakshadweep, Karnataka, Maharashtra, Gujarat coasts.

- **30 September (Day 3):** Heavy rain at isolated places very likely over Tamilnadu and Kerala. Thunderstorm accompanied with lightning very likely at isolated places over Tamilnadu. Rough to very rough Sea conditions are likely to prevail over Andaman & Nicobar Islands, South Tamilnadu, Kerala, Lakshadweep, Maharashtra, West Bengal coasts.
- **01 October (Day 4):** No weather warning.
- **02 October (Day 5):** Heavy rain at isolated places likely over Tamilnadu.

#### **Weather Outlook for subsequent 2 days from 3<sup>rd</sup> to 5<sup>th</sup> October 2018**

- Further withdrawal of southwest monsoon likely from most parts of northwest India.
- Scattered to fairly widespread rainfall likely over peninsular India and northeast India.
- A fresh Western Disturbance is likely to cause isolated precipitation over western Himalayan region and plains of northwest India. Dry weather likely over the rest of the country.

#### **Salient Advisories**

- As thunderstorm accompanied with lightning very likely at isolated places over **Tamilnadu** from 28<sup>th</sup> to 30<sup>th</sup>, over **Interior Karnataka** on 28<sup>th</sup>, over **Coastal Andhra Pradesh** on 28<sup>th</sup>, over **South Interior Karnataka** on 29<sup>th</sup>, over **Assam & Meghalaya, Jharkhand, Odisha, West Bengal & Sikkim, Konkan & Goa, Vidarbha** and **South Chhattisgarh** on 28<sup>th</sup>, over **Madhya Maharashtra** on 28<sup>th</sup> and 29<sup>th</sup> September, provide support to banana, young fruit plants and vegetables and undertake propping in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places. Keep cattle indoor during thunderstorm period.
- Rough to very rough sea conditions are likely to prevail over **Andaman & Nicobar islands, Maharashtra coast, South Tamilnadu** and **Kerala coasts** from 28<sup>th</sup> to 30<sup>th</sup>, over **Karnataka** and **Gujarat coasts** on 28<sup>th</sup> and 29<sup>th</sup> September. Fishermen and local population are advised to be cautious while venturing into the sea in these areas.
- As rain/thundershowers likely at most/many places over **Coastal Karnataka** from 28<sup>th</sup> to 30<sup>th</sup>, at many places over **South Interior Karnataka** and **Kerala** from 28<sup>th</sup> to 30<sup>th</sup>, over **Tamil Nadu & Puducherry** on 28<sup>th</sup>, over **Andaman & Nicobar islands** on 29<sup>th</sup> & 30<sup>th</sup> and over **Sub-Himalayan West Bengal & Sikkim** on 28<sup>th</sup> September along with heavy rain at isolated places very likely over Tamilnadu from 28<sup>th</sup> to 30<sup>th</sup> September and 2<sup>nd</sup> October, over Kerala from 28<sup>th</sup> to 30<sup>th</sup> and over South interior Karnataka on 28<sup>th</sup> and 29<sup>th</sup> September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- In **Madhya Maharashtra**, undertake preparatory tillage operations for sowing of *rabi* sorghum, gram and safflower.
- In **Marathwada**, apply protective irrigation to groundnut, vegetables and orchards. Undertake land preparation for sowing *rabi* chickpea and safflower. Undertake harvesting of *kharif* soybean, sorghum and pearl millet.
- In **Himachal Pradesh**, drain out excess water from the crop fields of maize, pulses and vegetable fields. Undertake harvesting of matured rice, maize and pulses. Undertake field preparation for sowing of early mustard, gram and lentil in lower regions and planting of potato in lower and mid hill regions at optimum soil moisture conditions.

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

- **Realised Rainfall:** Rainfall occurred in Ernakulam, Idukki, Kollam, Palakkad, Pathanamthitta, Thiruvananthapuram and Waynad districts of Kerala, Bidar, Gadag, Raichur, Vijayapura and Yadgir districts of North Interior Karnataka, Bengaluru Rural, Bengaluru Urban, Chamarajanagar, Hasan, Kodagu, Mandya, Mysuru, Ramanagara and Tumakuru districts of South Interior Karnataka, Srikakulam, Visakhapatnam, Vizianagaram and West Godavari districts of Coastal Andhra Pradesh, Adilabad, J. Bhupalpally, Jagtial, Kamareddy, Karimnagar, Kumaram, Bheem, M. Malkajgiri, Mancherla, Medak, Nalgonda, Nirmal, Nizamabad, Peddapalle, Ranjanna Sircilla, Siddipet, Warangal(Urban) districts of Telangana and in Coimbatore, Dindigul, Erode, Krishnagiri, Namakkal, Madurai, Theni, Tirupur 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/many places over Coastal Karnataka from 28<sup>th</sup> to 30<sup>th</sup>, at many places over South Interior Karnataka and Kerala from 28<sup>th</sup> to 30<sup>th</sup>, over Tamil Nadu & Puducherry on 28<sup>th</sup> along with heavy rain at isolated places very likely over Tamilnadu from 28<sup>th</sup> to 30<sup>th</sup> September and 2<sup>nd</sup> October, over Kerala from 28<sup>th</sup> to 30<sup>th</sup> and over South interior Karnataka on 28<sup>th</sup> and 29<sup>th</sup> September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
  - As thunderstorm accompanied with lightning very likely at isolated places over Tamilnadu from 28<sup>th</sup> to 30<sup>th</sup>, over Interior Karnataka on 28<sup>th</sup>, over Coastal Andhra Pradesh on 28<sup>th</sup> and over South Interior Karnataka on 29<sup>th</sup> September, provide support to 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 Tamilnadu and Kerala coasts from 28<sup>th</sup> to 30<sup>th</sup>, over Karnataka coast on 28<sup>th</sup> and 29<sup>th</sup> September. Fishermen and local population are advised to be cautious while venturing into the sea in these areas.
  - **Kerala:**
    - Undertake soil testing before start of *Punja* rice crop, Apply lime or Dolomite as recommended and treat seeds with pseudomonas. Tapping in rubber can be resumed. Repair damaged rain guards. Take care of tapping panels. Regulate the shade in the pepper gardens. Ensure aeration and drainage in banana field. Remove all the diseased and rotten leaves. Take up new planting of areca nut.
    - Trichogramma egg cards can be used for reducing the rice stem borer infestation. As a prophylactic measure to control blast and sheath rot diseases in paddy, spray 2.0 g pseudomonas in one litre of water at weekly intervals. As a preventive measure against bud rot in coconut, small perforated sachets containing 2 g of Mancozeb may be tied to the top leaf axil. A small quantity of the fungicide is released from the sachets to the leaf base thus protecting the palm. 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/10 litres of water or Chlorantraniliprole 3 ml/10 litres of water if the attack is severe. As a control measure against leaf eating caterpillar in snake gourd, spray Malathion 2 ml/litre water. Undertake plant protection methods 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 Isoprotholine @ 1.5 ml/litre for blast disease; Propiconazole @ 1.0 ml or Hexaconazole @ 2.0 ml/litre for sheath blight and Acephate @ 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 gm/acre. Spray 320 ml of Monocrotophos or Triazophos 400 ml or Acetamiprid 40 g per acre for thrips in black/green gram.
    - In Rayalaseema, the present weather conditions are favourable for thrips and jassids attack in groundnut. To control spray Monocrotophos @ 1.6 ml/litre of water. To control early leaf blight in tomato, spray Mancozeb (or) Chlorothalonil @ 2 g (or) Propiconazole 1 ml per litre of water 2 (or) 3 times at 15 days interval. To control rice hispa, spray Monocrotophos @ 1.6 ml or Hexaconazole @ 2 ml 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 Quinalphos or Profenophos @ 2 ml or Chlorpyrifos @ 2.5 ml per litre of water; for stem borer, apply Cartap Hydrochloride 4G @ 8kg per acre and for leaf folder, spray Chlorantraniliprole @ 0.3 ml per liter 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 liter 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. Considering the probable rainfall, postpone harvesting of millets. Provide propping for early season and mid-season planted canes against lodging with heavy wind anticipated. Also, protect banana crop against lodging by giving support. Current weather condition is suitable for seed sowing and gap filling in cotton cultivation. Dibble the seeds at a depth of 3cm on the side of the ridge, Sow the required number of seeds in each hole for varieties 2 seeds per hole and for hybrid 1 seed per hole and remove the excess germination on the 15th day. Take up gap filling on the 10th day of sowing. Take up planting operations, especially vegetable crops like chilies, brinjal, gourd, banana and perennial crops. Protect chilli nursery from flash of rainfall which will affect young seedlings.

➤ 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 same quantity of sand on a non rainy day.

▪ **Karnataka:**

➤ In South Interior Karnataka, undertake 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 @ 1.0 ml /4.5 liters of water against flower drop in cotton.

➤ In North Interior Karnataka, undertake sowing of Bengal gram (JG ICCV-10). Apply irrigation in sugarcane once in 10 days. In medium black soils, continue sowing of sunflower, sorghum, chickpea, safflower, sorghum + chickpea (2:1), safflower + chickpea (2:4). Keep the field free from weeds and undertake repeated intercultural operations to conserve soil moisture.

➤ In Coastal Karnataka, continue hand weeding in cotton. For the control of tube rot in pineapple, treat the tubers with Copper Oxochloride @ 3 gm/litre of water and then take up the planting.

➤ 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.

➤ In Coastal Karnataka, there is chance of attack of stem borer in ginger, turmeric and cardamom; for control, spray Monocrotophos @ 1.2 ml or Chloropyriphos @ 2 ml/litre of water after current spells of rain.

• **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 Karnataka, mix the fodder with essential salts in the feed of the animals. Due care should be taken to keep grazing pastures clean.

• **Agro Forestry**

➤ Agro forestry on the bund involving *Melia dubia* (Hebbevu), Silver oak and agase, halubevu, glyceridia is recommended for sustainable income.

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

• **Realised Rainfall:** Rainfall occurred in all districts of Arunachal Pradesh except Dibang Valley, East Kameng, Tawang, Tirap and Upper Siang, in all districts of Assam except Dhemaji, Golaghat, Kamrup(Metro), Morigaon, N C Hills and Nagaon, in East Garo Hills and South Garo Hills districts of Meghalaya, Aizawl, Champhai, Kolasib and Lunglei districts of Mizoram, Imphal West district of Manipur, Dimapur, Kohima, Mokokchung, Mon, Paren and Wokha districts of Nagaland and in all districts of Tripura during the week. Weather remained mainly dry over rest of the region.

• **Advisories:**

➤ As rain/thundershowers likely at many places over Arunachal Pradesh from 28<sup>th</sup> September to 1<sup>st</sup> October, over Assam & Meghalaya on 28<sup>th</sup> September, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.

➤ As thunderstorm accompanied with lightning very likely at isolated places over Assam & Meghalaya on 28<sup>th</sup> September, provide support to young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds and keep cattle indoor.

- **Arunachal Pradesh:**
  - Carry out spading/hoeing and weeding in groundnut field without disturbing the crop. Carry out weeding in paddy field.
  - On sunny day, spray Carbendazim/Mancozeb @ 1-2 ml/litre of water for leaf spot/tikka disease in groundnut at pegging stage. Install local trap of dead frog/fermented fish etc against gundhi bug in rice. In case of heavy infestation, spray Triazophos/Chloropyriphos @1-2ml/litre of water during clear/dry days or using proper stickers. Go for manual picking of Blister beetle in pulses without delay as the incidence of the pest during flowering stage may cause huge losses in harvest. Undertake plant protection measures after current spells of rain.
- **Assam:**
  - Continue sowing of seeds of recommended varieties of cauliflower, cabbage, knoll khol, tomato, brinjal, radish, carrot and spinach beet in nursery beds. Make provisions to drain out excess amount of water from the paddy and pulses fields. Complete weeding operations followed by earthing up in turmeric and ginger crops as early as possible. Monitor rice fields at regular interval against pest and disease infestations. Drain out excess water from sugarcane fields.
  - To control brown spot disease in Sali paddy, spray Mancozeb @ 2.5 g/litre or Ediphenphos @ 1 ml/litre or Carbendazim @ 1g/litre. If there is attack of leaf folder in Sali paddy, spray Chloropyriphos 20 EC or Quinalphos 25 EC @ 2.5-3 ml per litre of water. Undertake plant protection measures on a non rainy day.
- **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. Transplant one month old seedling on the raised bed at 45 x 45 cm spacing (Cabbage, Cauliflower, Broccoli) and 45 x 30 cm (Knol khol). Continue sowing of carrot and radish. Continue sowing of French bean and cow pea. Maintain proper drainage in ginger, turmeric and cucurbit fields. Harvest cucurbits, brinjal and chilli. Maintain 5 cm of standing water in rice field. Keep the field free of weeds. Maintain Proper drainage in ginger and turmeric fields.
- **Manipur:**
  - Maintain 5-8 cm water level in paddy field. Harvest mature crop of black gram, rice bean, soybean and groundnut. 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 rice field, spray Coragen 3-5 ml per 15 litres of water at early stage infestation of plant hoppers and thrips in paddy. Spray Carbendazim @ 30-40g/ 15 litres of water or Hexaclonazole @ 15ml/ 15 litres of water after rains for sheath blight in rice crop on a non rainy day.
- **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. 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 on a non rainy day.
- **Tripura:**
  - Carry out land preparation for sowing of sesamum, black gram and green gram. Plan to cultivate early winter vegetables such as cabbage, radish, brinjal, etc.
  - 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 in maize crop. 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 on a non rainy day.
- **Nagaland:**
  - Carry out timely harvesting in cucurbits. Avoid injuries to cucurbit crops while harvesting and handling. Undertake land preparation for Rabi maize. Start field preparation for toria/mustard and make arrangement for quality seeds of varieties M-27, TS-36 and TS-38.
  - Remove infested okra and brinjal fruits and shoots regularly and destroy them. 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. For bacterial blight infestation, spray Streptocycline 2gm/5 litres of water.

- **Animal Husbandry**

- In present weather conditions, special care should be taken against attack of maggots in the wounds of animals. Application of turpentine oil in the wounds followed by application of antibiotics for five days is advised. Provide UMB/Molasses if possible in the feed. Provide 10-30 ml of vitamin B-Complex in feed. Vaccinate pigs against FMD & swine fever and cattle/sheep/goat against FMD, Hemorrhagic Septicaemia, Black Quarter, etc. Go for normal vaccination schedule against Ranikhet and Gumboro diseases in Broiler. Monitor the flock against any kind of diseases.

- **Fishery**

- Provide supplementary feeds in the fisheries with rice bran and mustard oil cake mixed in the ratio of 1:1 in bags at different depths of water.

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

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands, Bhagalpur, Monghyar, Nalanda, Shiekpura and Vaishali districts of Bihar, Dhanbad, East Singbhum, Jamtara, Saraikela and West Singbhum districts of Jharkhand, all districts of Odisha except Jharsuguda, Sambalpur, Sonepur and Sundargarh, all districts of Sub-Himalayan West Bengal & Sikkim except Malda, North Dinajpur, South Dinajpur and West Sikkim and in all districts of Gangetic West Bengal except Murshidabad and Purulia during the week. Weather remained mainly dry over rest of the region.

- **Advisories:**

- As rain/thundershowers likely at many places over Andaman & Nicobar islands on 29<sup>th</sup> & 30<sup>th</sup> and over Sub-Himalayan West Bengal & Sikkim on 28<sup>th</sup> September along with isolated heavy rain, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- As thunderstorm accompanied with lightning very likely at isolated over Jharkhand, Odisha and West Bengal & Sikkim on 28<sup>th</sup> September, provide support to young fruit plants, staking in vegetables and undertake propping in sugarcane to prevent the crops to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places. Keep cattle indoor during thunderstorm period.
- Rough to very rough Sea conditions are likely to prevail over Andaman & Nicobar islands 28<sup>th</sup> to 30<sup>th</sup> September. Fishermen and local population are advised to be cautious while venturing into the sea in these areas.

- **Odisha:**

- 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.
- Undertake sowing of pulses like moong, urd, horse gram etc.
- 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:**

- Harvest matured *khaif* maize. Complete sowing of September sown Arhar with seed rate 25-30 kg/ha, before sowing of seeds should treated with rhizobium culture. Varieties-Pusa -9, Sharad etc. Prepare the fields for 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:**

- In upland, timely sown crops like mung, urd, maize, groundnut, etc. are at maturity stage. Harvesting of these crops may be done during clear weather condition and store them at a safer place. At present, sufficient moisture is available in the soil. Hence, farmers are advised to plough the land immediately after harvesting of the crops and may sow rabi crops like toria (rapeseed), table pea, potato etc. with assured irrigation facility. Farmers may arrange seeds of recommended variety along with fertilizer/manure for immediate sowing of crops.
- 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.

- Timely sown direct seeded rice crops (Last week of June) are at flowering stage and this stage is susceptible to the attack of the insect Gandhi bug. To control the insects, dusting of Chlorpyrifos/Quinolphos/Methyl Parathion dust @ 10 kg per acre is recommended. However, dusting should be performed during clear weather. The alternative method (in the case of unavailability of the insecticides), is of dusting coal/wood ash mixed with kerosene.
- 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 on a non rainy day.
- **West Bengal:**
  - In the Sub-Himalayan West Bengal, provide proper drainage facility in soybean. 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. Drain out excess water from vegetable fields through irrigation channels immediately to avoid rotting.
  - 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. Undertake plant protection measures on a non rainy day.
  - In Gangetic West Bengal, spray Chlorpyrifos @ 2ml or Endosulfun @ 1.5ml per litre of water with sticker to control leaf folder in high yield rice varieties. To control gundhi bug in direct seeded paddy, spray Neem oil @ 5ml/litre of water during early hours of the day in clear weather condition. Uproot and destroy the leaf curl diseased plants and spray Dimethoate 30% EC@ 1ml/litre of water at clear weather condition. Collect and destroy the damaged and dead plants. Spray Neem oil @ 2ml/litre of water in clear weather condition.
- **Andaman & Nicobar Islands:**
  - In the Andaman Islands, prepare the upland area for sowing of snake gourd and ridge gourd and use seed @ 5 to 6 kg/ha and 3.7 to 5 kg/ha respectively. Apply 5 kg of FYM to each basin of cucurbit plants with proper drainage facility.
- **Animal Husbandry**
  - In West Bengal, for foot and mouth disease in cattle, wash the wound with potassium permanganate solution. Keep the cow shed clean and dry. Clean and disinfect the cowshed with bleaching powder.
  - 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, provide dicalcium phosphate to the laying birds with feed for continuation of egg production.
  - 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 Andaman & Nicobar Islands, release Indian Major Carp fingerlings and maintain water depth of 1.5 m in the pond.
  - 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 Sindhudurg district of Konkan & Goa, all districts of Vidarbha, Aravalli, Chhota Udepur, Dahod Gandhinagar, Kheda, Mahisagar, Panchmahal, Sabarkantha, Surat districts of Gujarat Region during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
  - Rough to very rough Sea conditions are likely to prevail over Maharashtra coast from 28<sup>th</sup> to 30<sup>th</sup> and over Gujarat coast on 28<sup>th</sup> and 29<sup>th</sup> September. Fishermen and local population are advised to be cautious while venturing into the sea in these areas.

▪ **Maharashtra:**

- As thunderstorm accompanied with lightning very likely at isolated places over Madhya Maharashtra on 28<sup>th</sup> and 29<sup>th</sup>, over Konkan & Goa and Vidarbha on 28<sup>th</sup> September, provide support to young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds and keep cattle indoor.
- In South Konkan, maintain water level of 5-10 cm in rice field. Continue harvesting of early varieties of rice. Keep the harvested rice produce in safer place (Devgad and Jamsande Talukas of Sindhudurg district). In North Konkan, undertake harvesting of early rice varieties in clear weather. Provide protective irrigation to Mid-late and Late rice varieties. 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).
- In Madhya Maharashtra, undertake preparatory tillage operations for rabi sorghum, gram and safflower. In rice fields, maintain water level 5 to 10 cm. Undertake harvesting of matured soybean and pearl millet. Undertake sowing of *rabi* sorghum and chick pea.
- In Marathwada, apply protective irrigation to groundnut, vegetables and orchards. Undertake land preparation for *rabi* chickpea and safflower. Undertake harvesting of *kharif* soybean, sorghum and pearl millet. Dry soybean for one to two days then undertake threshing. Keep the harvested produce in safer place.
- In West Vidarbha, continue harvesting of short duration matured soybean. Continue sowing of safflower (varieties: Bhima, AKS-207, PKV-Pink). Continue preparatory tillage in harvested fields for sowing of early rainfed rabi crops. In East Vidarbha, maintain water level 5 to 10 cm in rice fields.
- In Marathwada, to control white grub in sugarcane, undertake soil application of Phorate granular 10 % @ 25 kg per hectare.

▪ **Gujarat:**

- In Middle Gujarat, undertake intercultural operations in cotton, castor, cluster bean and vegetable crops.
  - In South Gujarat, apply irrigation in pulses as per need. Continue land preparation by deep ploughing in harvested sugarcane field and keep field ready to plant the crop in next month.
  - In North Gujarat, continue harvesting of bajra, maize and picking of cow pea and green gram. Apply irrigation in groundnut, brinjal, tomato and gourds as per need. Carry out intercultural operations in castor, fennel crop.
  - In Saurashtra & Kutch, undertake harvesting of sesame, bajra, black gram and maize in time. Continue picking of ripen pods of cow pea and green gram. Apply irrigation to cotton, castor and vegetable crops through drip irrigation system. Continue intercultural operations in castor and vegetable crops to conserve soil moisture.
  - In Middle Gujarat, at the initial stage of leaf curl virus incidence in chili and tomato, spray Imidacloprid 17.8 SL @ 3 ml in 10 liters of water.
  - In South Gujarat, for effective control of mealeybug in cotton spray Chlorpyrifos 20 EC @ 25ml/10 litres of water.
  - In Saurashtra, under prevailing weather condition infestation of mites is observed in sesame crop; for control, spray Propargite @ 15 ml/10 litres of water. Heavy infestation of semilooper is observed in castor crop; spray Chlorpyrifos @ 30 ml in 10 liters of water.
- **Animal Husbandry**
- In Gujarat, provide adequate food to livestock and keep the animal shed clean.

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

- **Realised Rainfall:** Rainfall occurred in Chhindwara district of East Madhya Pradesh, all districts of West Madhya Pradesh except Ashoknagar, Bhind, Bhopal, Datia, Guna, Gwalior, Morena, Raisen, Sehore, Sheopur Kalani, Shivpuri and Vidisha, all districts of Chhattisgarh except Balrampur, Bilaspur, Janjgir, Jashpurnagar, Kondagaon, Korba, Korla, Raigarh, Surajpur and Surguja during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
  - **Madhya Pradesh:**
    - In West Madhya Pradesh, continue nursery preparation for cauliflower and cabbage. Continue harvesting of matured pods of pearl millet, green gram, black gram, soybean and vegetables. Continue transplanting of new saplings of orchards. In Central Narmada Valley Zone, undertake sowing of mustard, toria and safola. Undertake field preparation for sowing of early pea.
    - In East Madhya Pradesh, undertake harvesting of matured soybean and groundnut. 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.
    - In Kymore Plateau and Satpura Hill Zone, continue intercultural operations in rice. Continue nursery preparation for early season *rabi* vegetables. Continue field preparation for sowing of vegetable pea. Arrange good quality seed of variety- Arkel, PSM-3 or Azad pea-1 etc.
    - 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:**
- As thunderstorm accompanied with lightning very likely at isolated places over south Chhattisgarh on 28<sup>th</sup> September, 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 safe place.
- Continue raising of seedlings of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. Undertake harvesting of matured crops like mung, urad, maize, rice, groundnut, finger millet etc. Undertake sowing of *rabi* crops like 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. Undertake 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:** Rainfall occurred in all districts of Himachal Pradesh, all districts of Punjab except Barnala and Ferozpur, all districts of Haryana except Faridabad, Mewat and Palwal, all districts of Delhi except East Delhi and North East Delhi, in Doda, Jammu, Kathua, Ramban, Reasi, Samba and Udhampur districts of Jammu & Kashmir, Jaunpur, Kushinagar, Pratapgarh and Sant Ravidas Nagar districts of East Uttar Pradesh, Aligarh, Badaun, Bagpat, Bareilly, Bijnour, Bulandsahar, G. B. Nagar, Ghaziabad, Jotiba Phule nagar, Meerut, Moradabad, Muzzaffarnagar, Pilibhit, Rampur, Saharanpur and Shahajahanpur districts of West Uttar Pradesh, all districts of Uttarakhand, all districts of East Rajasthan except Baran, Bharatpur, Bundi, Dausa, Dholpur, Karauli, Kota and Sirohi, in Hanumangarh and Pali districts of West Rajasthan during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
  - **Jammu & Kashmir:**
    - Undertake harvesting of early maturing varieties of rice and maize. Continue sowing of toria, methi, spinach beet, coriander, radish, carrot, beet root and spinach. Undertake planting of potato. Continue picking up of matured pods of green gram. Continue transplanting of cole crops. Continue nursery sowing of *rabi* vegetables. Continue cultivation of Dhingri (*Pleurotus* spp.) mushroom. 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 after current spells of rain. Continue nursery sowing of onion.
    - To control the attack of sheath blight in rice crop, spray Carbendazim @ 0.1%.
  - **Uttarakhand:**
    - 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.
    - In Hill Zone, maintain proper level of water in irrigated rice during reproductive stage. Continue sowing of pea and toria. Continue sowing of radish, carrot, turnip, leafy vegetables like mustard, fenugreek, spinach etc. Undertake nursery sowing of onion.
    - To control leaf blight disease in maize crop, spray Mancozeb @ 2.5g/litre of water.
  - **Himachal Pradesh:**
    - Drain out excess water from the crop fields of maize, pulses and vegetable fields. Undertake harvesting of matured rice, maize and pulses. Undertake field preparation for sowing of early mustard, gram and lentil in lower regions and planting of potato in lower and mid hill regions at optimum soil moisture conditions. In High Hill Temperate Dry Zone, continue sowing of oats. Continue nursery sowing of mid season cauliflower and cabbage in poly house in mid hills and lower regions. Continue intercultural operations in vegetables in polyhouse.

- In Mid Hills Sub-Humid Zone, continue sowing of pea, garlic, radish, carrot, turnip and nursery preparation for cauliflower and cole crops.
- 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.
- To control white fly and sucking pest in vegetables spray Imidacloprid @ 1 ml/3litres of water.
- **Punjab, Haryana & Delhi:**
- In Punjab, continue planting of early varieties of potato and pea and 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. 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, undertake sowing early mustard and planting of early potato. Continue sowing of early pea. Undertake 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). 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.
- In Delhi, spray Spinosad @ 1 ml/4 litres of water against fruit borer and diamond back moth in cauliflower and cabbage.
- **Uttar Pradesh:**
- In East Uttar Pradesh, continue sowing of toria. Undertake field preparation for planting of potato. Undertake harvesting of matured maize, sesame, green gram and black gram. Apply irrigation in rice. Continue nursery sowing of cauliflower, cabbage, chilli and tomato, 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, continue preparation of nurseries of cauliflower for mid season (Nov-Dec.). Undertake sowing of carrot on raised bed. Undertake sowing of sarson saag, radish, coriander, spinach and fenugreek. Undertake transplanting of onion in prepared fields. Continue sowing of toria and planting of early varieties of potato.
- In South Western Semi Arid Zone, in present weather conditions, false smut may appear in rice. Symptoms include increase in grains size with brown coloured fungus inside. Spray Blitox 50 @ 500 g per acre at 10 days interval (2-3 times).
- **Rajasthan:**
- In East Rajasthan, 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. Undertake harvesting of matured maize 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, undertake sowing of mustard and gram.
- In West Rajasthan, continue harvesting of early moong, moth bean and cluster bean. Undertake sowing of radish, turnip and carrot. Undertake 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, undertake picking up matured cotton bolls.
- In Sub Humid Southern Plain and Aravali Hill Zone, for control of stem borer in maize apply Phorate 10 G 3% granules @ 5-7.5 kg/ha.
- **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, prepare colonies for upcoming winter season. Kill wasps with a wooden flap. Provide sugar feeding/artificial diet. Sulphur dusting @ 1gm/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.

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