



# *National Agromet Advisory Service Bulletin*

*Thursday 18<sup>th</sup> October 2018*  
*(For the period 18<sup>th</sup> to 23<sup>rd</sup> October 2018)*



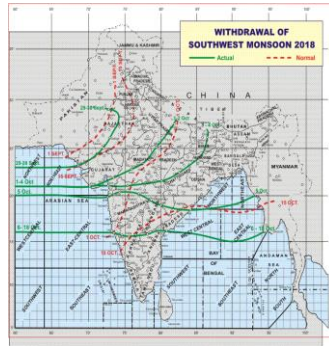
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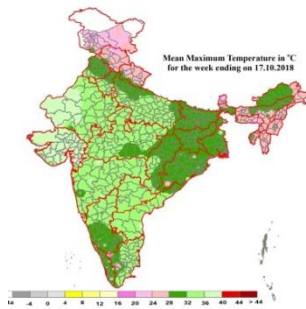
## Withdrawal of South West Monsoon 2018



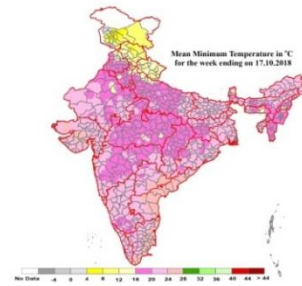
- The withdrawal line of southwest monsoon continues to pass through Lat. 16°N/Long. 94°E, Lat. 15°N/long.90°E, Machilipatnam, Kurnool, Gadag, Vengurla and Lat. 16°N/Long. 60°E.
- Conditions are becoming favourable for withdrawal of Southwest Monsoon from entire country around 20<sup>th</sup> October, 2018. Also, conditions are likely to become favourable for onset of Northeast Monsoon thereafter.

### Spatial distribution of weather parameters for the week ending on 17.10.2018

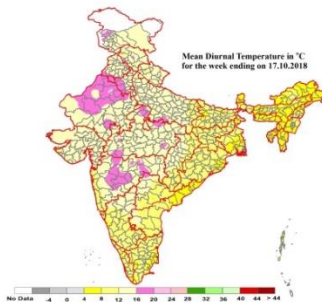
**Mean Maximum Temperature (°C) for the week ending on 17.10.2018**



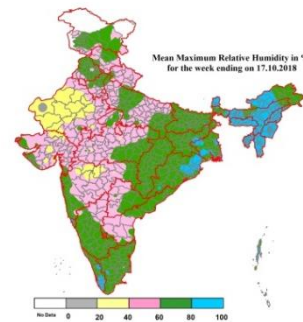
**Mean Minimum Temperature (°C) for the week ending on 17.10.2018**



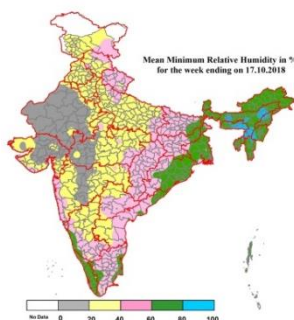
**Mean Diurnal Temperature Variation (°C) for the week ending on 17.10.2018**



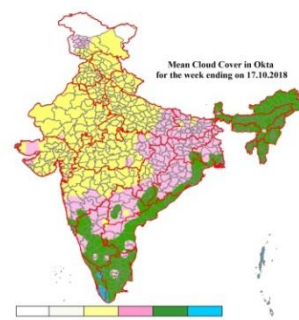
**Mean Maximum Relative Humidity (%) for the week ending on 17.10.2018**



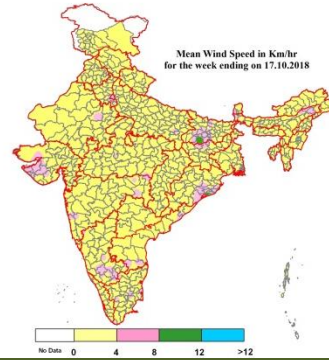
**Mean Minimum Relative Humidity (%) for the week ending on 17.10.2018**



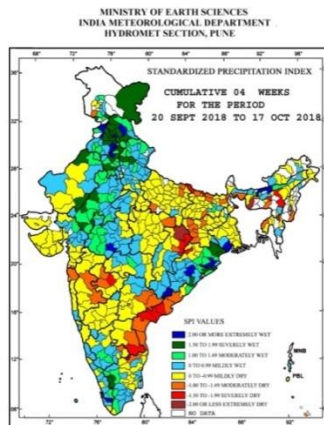
**Mean Cloud Cover (okta) for the week ending on 17.10.2018**



## Mean Wind Speed (km/hr) for the week ending on 17.10.2018



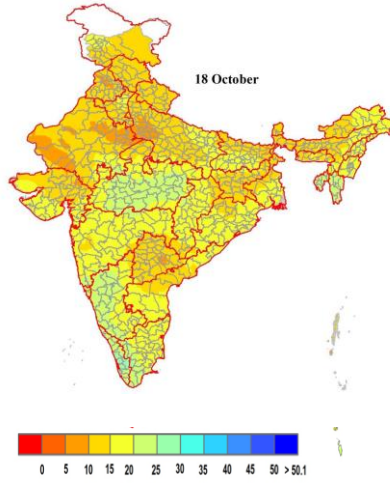
## Standardised Precipitation Index Cumulative 4 weeks for the period 20<sup>th</sup> September to 17<sup>th</sup> October 2018



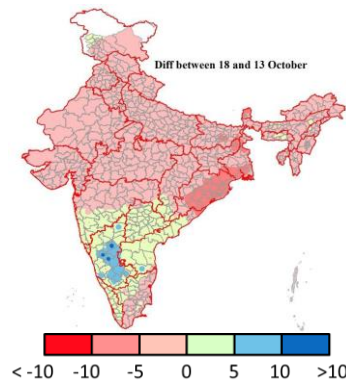
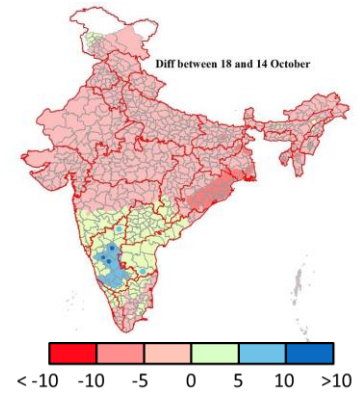
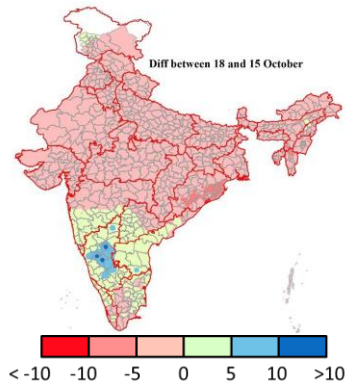
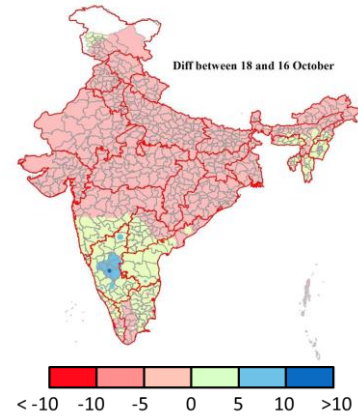
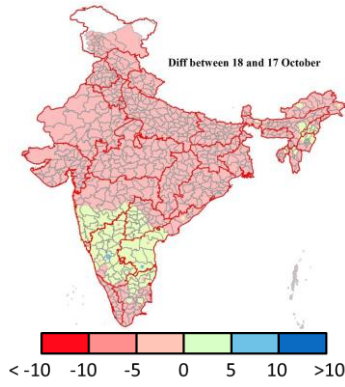
- Extremely/severely wet conditions experienced in most districts of Himachal Pradesh; many districts of Punjab; few districts of Odisha; Delhi; Barpeta, Udalguri, Baksa districts of Assam; East Midnapore district of West Bengal; Bijnor, Muzaffarnagar districts of Uttar Pradesh; Doda, Jammu, Ladakh (Leh) districts of Jammu & Kashmir; Sri Ganganagar, Pali, Ajmer, Dungarpur, Rajsamand, Pratapgarh districts of Rajasthan; Khandwa district of Madhya Pradesh; Coimbatore, Tirupur, Karaikal districts of Tamil Nadu & Puducherry; Pathanamthitta district of Kerala.
- Extremely/Severely dry conditions experienced in few districts of Andhra Pradesh; N. C. Hills, Nagaon, Kamrup Metro districts of Assam; West Garo Hills, district of Meghalaya; South Dinajpur district of West Bengal; Jharsuguda district of Odisha; W Champaran, Sitamarhi districts of Bihar; Parbhani district of Maharashtra; Jashpur, Raigarh, Surguja districts of Chhattisgarh.
- Moderately dry conditions experienced in few districts of Jharkhand; Andhra Pradesh; Telangana; Goalpara district of Assam; East Khasi Hills district of Meghalaya; West Tripura, district of Tripura; Cooch Behar district of West Bengal; East Champaran, Darbhanga, Kishanganj, Madhubani, Nawada, Purnea districts of Bihar; Banda, Gorakhpur, Maharajganj districts of Uttar Pradesh; Rajouri district of Jammu & Kashmir; Singrauli district of Madhya Pradesh; Dadara & Nagar Haveli districts of Gujarat Region; Thane district of Konkan & Goa; Ahmednagar, Sholapur, Beed, Jalna districts of Maharashtra; Janjgir district of Chhattisgarh; Vellore district of Tamil Nadu & Puducherry; Chickballapur district of Karnataka.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.



Daily Soil Moisture (mm) for 18<sup>th</sup> October 2018 (ending at 0830 IST) for 60 cm depth



Difference of Soil Moisture (mm) for 60 cm depth



## Weather Forecast for next 5 days valid upto 0830 hours of 23<sup>rd</sup> October 2018

- Meteorological subdivision wise detailed 5 days rainfall forecast is given in Table below.
- Shallow to moderate fog very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 3 days.
- No significant change in temperatures likely over most parts of the country during next 2-3days.

### 5 Day Rainfall Forecast (Mid day) 18<sup>th</sup> October 2018

Met-Sub-Division	18-Oct Today	19Oct Fri	20Oct Sat	21Oct Sun	22Oct Mon
1. Andaman & Nicobar Islands	FWS	SCT	SCT	FWS	WS
2. Arunachal Pradesh	SCT	SCT	ISOL	ISOL	ISOL
3. Assam & Meghalaya	ISOL	ISOL	ISOL	ISOL	ISOL
4. N. M. M. & T.	ISOL	ISOL	DRY	DRY	DRY
5. S.H. West Bengal & Sikkim	ISOL	ISOL	ISOL	ISOL	ISOL
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. Uttarakhand	ISOL	ISOL	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	DRY	DRY	DRY
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	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	SCT	ISOL	ISOL	ISOL	ISOL
24. Madhya Maharashtra	ISOL	ISOL	ISOL	ISOL	ISOL
25. Marathwada	DRY	DRY	DRY	DRY	DRY
26. Vidharbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	SCT	ISOL	ISOL	DRY	DRY
29. Telangana	ISOL	ISOL	DRY	DRY	DRY
30. Rayalaseema	FWS	ISOL	ISOL	ISOL	DRY
31. Tamilnadu & Puducherry	SCT	SCT	SCT	SCT	ISOL
32. Coastal Karnataka	FWS	FWS	SCT	SCT	ISOL
33. North Interior Karnataka	FWS	SCT	ISOL	ISOL	ISOL
34. South Interior Karnataka	FWS	FWS	SCT	ISOL	ISOL
35. Kerala	SCT	SCT	SCT	SCT	SCT
36. Lakshadweep	SCT	SCT	SCT	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 Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

### Weather Warning during next 5 days

- **18 October (Day 1):** Heavy rainfall very likely at isolated places over Coastal Andhra Pradesh, Rayalaseema, Karnataka, Tamilnadu & Puducherry and Kerala. Thunderstorm accompanied with lightning & gusty winds very likely at isolated places over Madhya Maharashtra, Konkan & Goa, Coastal Andhra Pradesh, Telangana, Rayalaseema, Karnataka, Kerala and Tamilnadu & Puducherry.
- **19 October (Day 2):** Heavy rainfall very likely at isolated places over Coastal & South Karnataka, Tamilnadu & Puducherry and Kerala. Thunderstorm accompanied with lightning & gusty winds very likely at isolated places over Madhya Maharashtra, Konkan & Goa, Coastal Andhra Pradesh, Rayalaseema, Karnataka, Kerala and Tamilnadu & Puducherry.
- **20 October (Day 3):** Heavy rainfall very likely at isolated places over Tamilnadu & Puducherry and Kerala. Thunderstorm accompanied with lightning & gusty winds very likely at isolated places over Kerala.

andTamilnadu& Puducherry.

- **21 October (Day 4):** Heavy rainfall likely at isolated places over Andaman & Nicobar Islands.
- **22 October (Day 5):** Heavy rainfall likely at isolated places over Andaman & Nicobar Islands.

#### **Weather Outlook for subsequent 2 days from 23<sup>rd</sup> to 25<sup>th</sup> October2018**

- A low pressure area is likely to form over north Andaman Sea and adjoining southeast Bay of Bengal around23<sup>rd</sup> October.
- Scattered to fairly widespread rainfall with isolated intense activity likely over Kerala, Tamilnadu and Andaman& Nicobar Islands.
- Isolated rainfall likely over western parts of Central India.
- Dry weather likely over the rest of the country.

#### **Salient Advisories**

- As rain/thundershowers likely at many places over **Coastal Karnataka** and **South Interior Karnataka** on 18<sup>th</sup> and 19<sup>th</sup>, over **Royalaseema** and **North Interior Karnataka** on 18<sup>th</sup>, rain/thundershowers likely at most/many places over **Andaman & Nicobar Islands** on 18<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup> October along with heavy rainfall likely at isolated places on 21<sup>st</sup> and 22<sup>nd</sup>, heavy rain likely at isolated places over Coastal Andhra Pradesh, Royalaseema, Karnataka on 18<sup>th</sup>, over Coastal & South Karnataka on 19<sup>th</sup>, over Tamilnadu & Puducherry and Kerala from 18<sup>th</sup> to 20<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 likely at isolated places over **Coastal Andhra Pradesh, Royalaseema** and **Karnataka** on 18<sup>th</sup> and 19<sup>th</sup>, over **Kerala** and **Tamilnadu & Puducherry** from 18<sup>th</sup> to 20<sup>th</sup>, over **Telangana** on 18<sup>th</sup> October, over **Madhya Maharashtra** and **Konkan & Goa** on 18<sup>th</sup> and 19<sup>th</sup> October, provide support to banana, young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds.Undertake propping in sugarcane. Keep cattle indoor during thunderstorm period.
- In North Eastern Coastal Plain Zone of **Odisha**, drain out excess water from the rice fields and maintain 3-5 cm standing water. Problem of swarming caterpillar may arise after receding of flood water. To control it, spray Chloropyriphos + Cypermethrin @ 400ml/acre. Due to the heavy rainfall during last week, wilting of plants may appear in early planted vegetable crops. To control it, spray Streptocycline1.5g with 25g Copper Oxychloride per 10 litres of water. Also seedling rot is likely to appear in vegetable nursery. Spray Copper Oxychloride @ 2.5g/litre of water to control it.
- In **Coastal Andhra Pradesh**, remove excess water from the sugarcane fields. Propping may be done in grown up sugarcane crop to reduce lodging.

#### **Detailed Agromet Advisories**

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

**Realised Rainfall:** Rainfall occurred in all districts of Kerala, all districts of Coastal Karnataka, Dharwad, Gadag, Haveri, Kaburgi and Koppal districts of North Interior Karnataka, all districts of South Interior Karnataka except Bangalore (Urban) and Chikaballapur, in East Godavari, Prakasam, Srikakulam, Visakhapattanam and Vizianagaram districts of Coastal Andhra Pradesh, Mahabubabad district of Telangana, Ariyalur, Coimbatore, Dharmapuri, Dindigul, Kanyakumari, Krishnagiri, Nagapattinam, Nilgiris, Ramanathapuram, Sivaganga, Theni, Tirupur and Tiruvannamalai districts of Tamil Nadu during the week. Weather remained mainly dry over rest of the region.

##### • **Advisories:**

- As rain/thundershowers likely at many places over over Coastal Karnataka and South Interior Karnataka on 18<sup>th</sup> and 19<sup>th</sup>, over Royalaseema and North Interior Karnataka on 18<sup>th</sup>, along with heavy rain likely at isolated placesover Coastal Andhra Pradesh, Royalaseema, Karnataka on 18<sup>th</sup>, over Coastal & South Karnataka on

19<sup>th</sup>, over Tamilnadu & Puducherry and Kerala from 18<sup>th</sup> to 20<sup>th</sup> October, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safe places.

- As thunderstorm accompanied with lightning and gusty winds likely at isolated places over Coastal Andhra Pradesh, Rayalaseema and Karnataka on 18<sup>th</sup> and 19<sup>th</sup>, over Kerala and Tamilnadu & Puducherry from 18<sup>th</sup> to 20<sup>th</sup>, over Telangana on 18<sup>th</sup> October, provide support to banana, young fruit plants and staking in vegetables to prevent the crops from lodging due to strong winds. Undertake propping in sugarcane. Keep cattle indoor.

- **Kerala:**

- Take up sowing of cabbage and cauliflower in nursery beds. Ensure aeration and drainage in the banana fields. Remove all the diseased and rotten leaves. It is ideal time for planting polybag coffee seedlings. Short duration vegetable crops like Amaranthus, Cow pea etc. can be cultivated in the interspaces of newly planted banana crop.
- Monitor cardamom crop against Azhukal disease and coffee plants against berry borer. Clean the bud rot affected parts of coconut palm and apply Bordeaux paste. Apply Tilt @ 1ml per litre of water for sigatoka leaf spot in banana. Undertake plant protection measures on a non rainy day.

- **Andhra Pradesh:**

- In Coastal Andhra Pradesh, propping is to be done in grown up sugarcane crop to reduce lodging. Remove excess water from the sugarcane fields where susceptible varieties viz., 81V48, 81A99 and Co62175 are grown. Continue land preparation in upland and procure seeds for sowing of rabi pulses.
- In Rayalaseema, continue 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. Carry out harvesting of groundnut on clear days when 80% of the leaves turn yellow and the color inside the shell turns black.
- In Coastal Andhra Pradesh, in paddy crop at panicle emergence to flowering stage, spray Hexaconazole @ 2 ml/litre of water for control of sheath blight, Acephate @ 1.5 g/ litre of water for BPH and Cartap Hydrochloride 2.0 g/litre of water Leaf folder.
- In Rayalaseema, semi looper incidence was noticed in castor at few places in the division. Farmers are advised to spray Acephate @ 1.5 g or Profenophos @ 2ml per litre of water. If the incidence is severe, apply Thiodicarb @ 1.5g/litre of water on a non rainy day.

- **Telangana:**

- Take up sowing of rabi groundnut under irrigated situation. In view of prevailing dry spell, give one irrigation to maize crop at grain filling stage, red gram at flowering stage and cotton crop at boll development stage if irrigation facility is available.
- 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. For the incidence of Leaf Blight disease in Tomato, spray Mancozeb @ 2.5 g or Propiconazole @ 1 ml per liter of water twice at 15 days interval.

- **Tamil Nadu:**

- Ensure proper drainage in rain fed crop fields. Protect chilli saplings in nursery from heavy rainfall. Store harvested paddy grain in dry places. Use transparent polythene sleeves with 4% vent to cover banana bunches to increase their quality.
- Prevailing high relative humidity is also favourable for black arm disease in cotton. Monitor the crop and if necessary, spray mixture of Tetracycline 100 gm + Copper Oxychloride 1200 gm / ha. Due to the current weather condition, there may be incidence of Stem fly in Maize. To control, set up fish meal trap @ 12/ha till the crop is 30 days old. Apply insecticides like Methyl demeton 25 EC @ 500 ml/ha or Dimethoate 30% EC @ 500 ml/ha. Sooty mould disease is noticed in coconut/mango. Spray 1 kg maitha or starch boiled in 1 litre water and diluted with 20 litres of water. Undertake plant protection measures after current spells of rain.

- **Karnataka:**

- In North Interior Karnataka, continue sowing of rainfed Bengal gram (JG ICCV-10, JG-11, Annegeri-1, BGD-103 ,GBM-2), sunflower, chickpea (A-1, GBS-964, GB-1105), safflower (A-1, A-2, S-144, A-300), wheat (Bijga yellow, DWR-137 (kiran), DWD-2006), sorghum (MaldandiMuguti, DSV-4, DSV-5 or Hybrid- DSH-4) crops. Undertake harvesting of maize crop.
- In South Interior Karnataka, undertake harvesting of matured maize cobs. Complete land preparation for sowing of *rabi* crops. Undertake sowing of maize, Bengal gram, finger millet, field bean and horse gram crops.
- In Coastal Karnataka, continue cotton picking after current spells of rain.
- In South Interior Karnataka, cloudy weather encourages the occurrence of boll worms in cotton; for control, spray Methomyl @ 2 ml/liter in clear weather.
- In Coastal Karnataka, scrape the stem bleeding infected part in coconut and apply 1% Bordeaux mixture to the infected area. Spray 1% Bordeaux mixture solution against Koleroga in Arecanut.



- **Animal Husbandry**

- In Karnataka, keep the animal habitation dry to avoid hoof infection & to prevent fly. 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.
- In Andhra Pradesh, vaccinate cattle against FMD and goat against blue tongue disease.
- In Tamil Nadu, greens and straw should be given half (quantity) in the morning and half in the evening after milking. Do not change the fodder and its quantity and it can be changed gradually. Long and hard stem fodders should be cut into small pieces and fed to the animals. Better to feed the cow with mixture of young foliage and dry grass with hay. Silage should be given after the end of milking, concentrated feed should be given in the morning and evening with equal distribution.

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

- **Realised Rainfall:** Rainfall occurred in Changlang, East Siang, Lohit, Lower Dibang Valley, Papumpare, Tirap, Upper Subansari, West Kameng and West Siang districts of Arunachal Pradesh, Bongaigaon, Cachar, Chirang, Dhubri, Dibrugarh, Goalpara, Hailakandi, Karimganj, Lakhimpur, N. C. Hills, Sibsagar and Tinsukia districts of Assam, all districts of Meghalaya except West Garo Hills, Aizawl, Champhai, Kolasib, Lunglei and Serchhip districts of Mizoram, all districts of Nagaland except Mon and Wokha, all districts of Tripura except Dhalai during the week. Weather remained mainly dry over rest of the region.
- **Advisories:**
  - **Arunachal Pradesh:**
    - Undertake harvesting of Mipun rice. Undertake harvesting of black gram when pods turn pale yellow. Take up harvesting of tomato.
    - Continue harvesting of early transplanted matured *kharif* rice and Jhum rice. Undertake sowing of pea/gram in rice fallow. Take up sowing of *rabi* vegetables preferably in nurseries under polyhouses/protected cultivation.
    - Apply Neem oil (1500 ppm) @ 5 ml/litre at 15 days interval for 2-3 times for management of aphids, white fly etc. in tomato on a non rainy day.
  - **Assam:**
    - Sanitize the field by cleaning bunds, channels, and field roads and removing weeds before sowing *rabi* vegetables. Undertake land preparation sowing of *rabi* pulses and oil seeds. Continue land preparation for onion and toria cultivation. Take up sowing of recommended varieties of *Rabi* maize, pea and tomato. Mid-October to mid- November is the optimum time for planting of potato. Select sandy loam soil rich in organic matter for cultivation of potato. Recommended varieties for potato are KufriChandramukhi, KufriJoyti and KufriSindhuri. Undertake early sowing of seeds of rapeseed and mustard to avoid Aphid infestation during flowering stage. Transplant seedlings of cauliflower, knolkhol, tomato, brinjal and radish in the main field at 30-35 DAS.
    - If there is attack of hispa in Sali paddy, spray Chloropyriphos 20 EC and for leaf folder attack, spray Quinalphos 25 EC @ 2.5-3 ml per litre of water. For pod borer attack in red gram and green gram, spray Quinalphos @ 2.5 ml/litre of water followed by Dimethoate @ 2ml/litre of water at 10 days interval.
  - **Meghalaya:**
    - Prepare nursery bed for sowing of cole crops, root crops and cucurbits. Carry out harvesting of tender French bean and cow pea. Harvest brinjal and chilli regularly. Maintain 5 cm of standing water in rice field. Keep the field free of weeds. Carry out weeding in ginger and turmeric fields.
    - Spray Hexaconazole @ 1ml/litre of water at 15 days interval for 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. Take up sowing of *rabi* vegetables when optimum soil moisture level is attained. Prepare land for planting of potato. Take up sowing of mustard and rapeseed just after harvesting of rice, soybean, groundnut, black gram, rice bean etc.
  - **Mizoram:**
    - Harvest mature cobs of maize and undertake weeding in rice field.
    - Monitor rice crop against gundhi bug. Install local trap of dead frog/fermented fish etc against gundhi bug in normal transplanted *kharif* rice or spray Triazophos/Chloripyriphos @ 1-2ml/litre of water. Due to high humidity the problem of citrus canker get aggravated in acid lime leading to excessive fruit drop. Spray copper oxychloride 180 gms with Spreptocycline 6 gms in 60 liters of water to control canker. Spray Dimethoate 30 EC @ 3ml/litre of water against aphids in cucurbits.
  - **Tripura:**
    - Continue harvesting of maize. Continue transplanting of cabbage, cauliflower, radish and brinjal. Keep cucurbit field weed free.
    - For blast disease in Aman rice at panicle emergence stage, apply combination of Carbendazim and Mancozeb



@ 1.5 gm per liter of water as prophylactic measure. In case of severe attack apply Tricyclazole 0.8 gm or Propiconazole 1 ml per liter of water. Repeat the application at 10 to 12 days interval if needed.

▪ **Nagaland:**

- Continue sowing of *rabimaize*, toria and mustard. Take up sowing of vegetable crops like cabbage, tomato, radish and broccoli.
- For management of blast disease in TRC/WRC rice, destroy the infested residue, stubbles, grass and weeds present in the bunds of the field as they act as a source for the infection.

• **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. Vaccinate pigs against FMD & swine fever and cattle/sheep/goat against FMD, Hemorrhagic Septicaemia, Black Quarter, etc.

• **Fishery**

- Maintain water level at a depth of 1.0m to 1.5m. Ensure good quality water in fish culture ponds by liming. - Encircle fish culture ponds using happa net avoid escape of grow-out fishes.

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

- **Realised Rainfall:** Rainfall occurred in North and Middle Andaman and Nicobar districts of Andaman & Nicobar Islands, Banka, Bhagalpur, Jamui, Katihar, Khagadia, Lakhisarai, Madhepura, Monghyar, Purnea, Saharsha and Sheikpura districts of Bihar, Chatra, Dhanbad, Dumka, East Singbhum, Godda, Pakur, Ramgarh and West Singbhum districts of Jharkhand, all districts of Odisha except Bargarh, Jharsuguda, Nawapara, Nawarangpur, Sambalpur and Sundargarh, all districts of Gangetic West Bengal except Burdwan and Hooghly and in Malda district of Sub-Himalayan West Bengal & Sikkim during the week. Weather remained mainly dry over rest of the region.

• **Advisories:**

▪ **Odisha:**

- In North Eastern Coastal Plain Zone, drain out excess water from the rice fields and maintain 3-5 cm standing water. Problem of swarming caterpillar may arise after receding of flood water. To control it, spray Chloropyriphos+Cypermethrin@400ml/acre or Lambadacyhalothrin 4.9 C.S @250ml/acre
- Due to the heavy rainfall last week, wilting of plants may appear in early planted vegetable crops. To control it spray 1.5g Streptocycline with 25g Copper oxychloride per 10 litres of water. Also seedling rot is likely to appear in vegetable nursery. Spray Copper Oxychloride@2.5g/litre of water to control it.
- In North Central Plateau Zone, continue harvesting of matured rice, groundnut, green gram and black gram.
- 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 of infestation of boll worm, fix five pheromone traps per acre in the crop fields.

▪ **Bihar:**

- Continue harvesting of matured *kharifmaize*. Continue sowing of mustard and rapeseed and land preparation for planting of sugarcane. Undertake intercultural operations in pigeon pea. Undertake land preparation for timely sowing of *rabi* crops such as lentil, pea, garlic, coriander, sunflower, rajma and methi. Undertake transplanting of brinjal, tomato, chilli, cauliflower and cabbage.
- Monitoring of gundhi bug is advised in rice crop which is at milk stage. If the number of pest exceeds from ETL value then apply Quinalphos 1.5 % or Methyl Parathion 2% or Folidol dust @ 25 kg per ha to protect the crop. For control of Brown plant hopper in rice crop, spray Bruprofezin @ 1.5 ml per litre of water per hectare.

▪ **Jharkhand:**

- Farmers having 3-4 irrigation facility, may proceed for cultivation of wheat, potato and table pea. And those who have only 2-3 irrigation facility may proceed for toria cultivation. Undertake sowing of gram, mustard, lentil and linseed. Undertake nursery sowing of cabbage, cauliflower and tomato.
- To control gundhi bug in rice apply Quinalphos 1.5% dust @ 25 kg/ha or spray Quinalphos 25 EC @ 1.5 litre/500 litres 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, complete the harvesting of mature capsules of large cardamom and continue

harvesting round chilli. Continue preparation of seed bed for early winter vegetables crops. Carry out careful roguing and destruction of infected ginger and turmeric plants. Alternative wetting and drying should be given without cracking of the soil to the rice crop at booting. Continue raise seedlings of tomato in nursery bed.

- In Gangetic West Bengal, give proper bunding to hold water in rice field.
- In Sub-Himalayan West Bengal, for mealy bug attack in Aman paddy, spray Chlorpyrifos 2 ml/litre of water. For collection and destruction of fruit fly, place pheromone traps @ 2 per bigha. For white fly and jassid in bhindi crop, apply Acetamiprid 20% SP@1g or Thiomethoxam 0.3 SG 1g/3 litres of water.
- In Gangetic West Bengal, for white fly in tomato, uproot and destroy the diseased leaf curls and spray Dimethoate 30% EC @ 1ml/litre of water; for yellow mite/ thrips in chilli, remove and destroy the affected plant parts and spray Dimethoate 30% EC@ 1ml/litre of water at clear weather condition and for stem borer in brinjal, collect and destroy the damaged and dead plants and spray Neem oil @ 5 ml/litre of water at clear weather condition.

▪ **Andaman & Nicobar Islands:**

- As rain/thundershowers likely at most/many places over Andaman & Nicobar Islands on 18<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup> October along with heavy rainfall likely at isolated places on 21<sup>st</sup> and 22<sup>nd</sup>, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
- In Andaman and Nicobar Islands, drain out excess rain water from vegetable fields wherever required.
- In the Andaman Islands, apply second dose of neem coated urea @ 25 kg/ha to the rice field and setup light traps to attract borers moth during night time as the weather is conducive for its spread. Remove the fruit borer infected fruits in bhendi and cucurbits and destroy it. Provide drainage and remove weeds. Undertake plant protection measures after current spells of rain.
- In the Nicobar Islands, harvest matured coconut and fallen nuts, avoid sprouting.

• **Animal Husbandry**

- In Odisha, due to recent heavy rain and prevailing high humidity, animals should be provided with clean and hygienic drinking water. Calves above three months and sheep and goat above two months should be vaccinated against Foot and Mouth disease.
- 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.
- 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 reonetric 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. Restrict the time cattle spends in pastures. Mix essential salts in the feed of the animals.
- In Andaman & Nicobar Islands, keep the animal shed clean to avoid infectious diseases to the firm animal.

• **Fisheries**

- In West Bengal, apply cow dung @ 100kg/bigha monthly basis in fish culture pond as fish feed.

## WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rainfall occurred in Sindhudurg districts of Konkan & Goa during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
  - **Maharashtra:**
    - As thunderstorm accompanied with lightning and gusty winds likely at isolated places over Madhya Maharashtra and Konkan & Goa on 18<sup>th</sup> and 19<sup>th</sup> October, 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 South Konkan, maintain water level of 5-10 cm in rice field in mid and late varieties of rice. Undertake sowing of *kulthi*, *chavli* and *wal*. Continue harvesting of early varieties of rice. In North Konkan, continue harvesting of rice in morning hours and follow immediate threshing of rice; grains may be dried in sun for 3 to 4 days. Continue harvesting of matured finger millet. Continue sowing of okra and watermelon. Undertake nursery bed preparation for vegetables like brinjal, tomato, chilli, knoll-khol and cabbage.
    - In Madhya Maharashtra, in rice fields, maintain water level of 5 to 10 cm. Continue preparatory tillage operations for rabi sorghum, gram and safflower. Undertake harvesting of matured early varieties of rice. Keep the harvested produce in safer place. Continue sowing of *rabi* sorghum till last week of October. Continue planting of rangada onion till last week of October. Under sufficient residual soil moisture, continue sowing of chickpea. Undertake sowing of wheattill 15<sup>th</sup> November. Continue harvesting of matured soybean and pearl

millet.

- In Marathwada, apply protective irrigation to cotton, pigeonpea, sugarcane, vegetables and orchards. Irrigate sugarcane using drip irrigation method. As per availability of water, undertake sowing of rabi sorghum and groundnut. Undertake picking of cotton. Continue harvesting of *kharif* soybean, sorghum and pearl millet. Dry soybean for one to two days then undertake threshing.
- In West Vidarbha, apply protective irrigation to vegetables and orchards. Continue harvesting of matured soybean. Continue sowing of rabi crops like linseed and safflower upto last week of October with assured irrigation facilities. Continue sowing of rainfed chickpea up to second fortnight of October with assured irrigation facilities. In East Vidarbha, apply protective irrigation to vegetables and orchards. Continue harvesting of matured soybean. Maintain water level 5 to 10 cm in rice fields. Undertake harvesting of matured early varieties of rice.
- In Vidarbha, to control leaf eating caterpillar in pigeonpea, spray Quinalphos 25 EC @ 16 ml or Emamectin Benzoate 5% SG @ 5g per 10 litres of water.

▪ **Gujarat:**

- In Middle Gujarat, continue harvesting of matured pearl millet and rice crops. Carry out intercultural operations in cotton, castor, cluster bean and vegetable crops. Apply irrigation in pigeon pea, cluster bean crop.
- In North Gujarat, continue land preparation for sowing of mustard, fennel and carrot crops. Complete harvesting of groundnut, sesame, bajra, maize, cow pea and green gram crops.
- In Saurashtra & Kutch, continue land preparation for sowing of mustard. Carry out sowing of *rabi* sorghum, garlic, chickpea 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. Complete harvesting of matured groundnut, sesame, soybean, bajara, green gram and black gram crops.
- In South Gujarat, continue planting of sugarcane crop. Carry out mulching in vegetable crops using fodder/plastic mulch to conserve moisture.
- In South Gujarat, present weather condition is favourable for incidence of mealybug; spray Profenophos 50 EC @ 20 ml/10 liters of water.
- In North Gujarat, present temperature and humidity conditions favour infestation of thrips, jassid and mealy bug in cluster bean crop; to control, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water in clear weather.

• **Animal Husbandry**

- In Gujarat, keep the animal shed clean.

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

- **Realised Rainfall:** Rainfall occurred in Balrampur district of Chhattisgarh during the week. Weather remained mainly dry/dry over rest of the region.

• **Advisories:**

- In West Madhya Pradesh, continue nursery preparation for *rabi* vegetables. Continue sowing of pea, garlic and planting of potato. Continue digging of matured rhizomes of ginger. Continue field preparation for sowing of wheat. Undertake sowing of gram and mustard at optimum soil moisture conditions. Undertake planting of sugarcane. Continue harvesting of pearl millet, green gram, black gram, soybean and vegetables.
- In East Madhya Pradesh, continue harvesting of matured soybean and groundnut. Continue sowing of gram, safflower, linseed, mustard and toria. Undertake sowing of early varieties of pea and garlic. Continue nursery preparation for vegetables. 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. Continue sowing of early varieties of pea.
- In Kymore Plateau and Satpura Hill Zone, continue harvesting of matured soybean, green gram, black gram and rice. Continue nursery preparation for early season *rabi* vegetables. Continue sowing of pea. Continue sowing of carrot, beetroot, radish, spinach, fenugreek and planting of potato.
- In Central Narmada Valley Zone, vegetables crops may get infested by powdery mildew disease for its control spray 80% water soluble Sulphur @ 20 g per 10 litres of water.

▪ **Chhattisgarh:**

- Continue 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. Continue 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 nursery preparation for *rabi* vegetables. Continue

field preparation for sowing of *rabi* crops.

- In Bastar Plateau Zone, for control of Blast disease in paddy crop, spray Tricyclozole @ 6 g/10 litres of water or Propiconazole @ 1ml/litre of water.
- **Animal Husbandry**
- In Madhya Pradesh, provide clean and fresh water two times a day. Provide 35-40 gm mineral mixture per animal as supplement & green fodder 25 kg/cattle/day.
- 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 Guradaspur district of Punjab, Ambala and Yamunanagar districts of Haryana, Kupwara district of Jammu & Kashmir, Bijnor, Moradabad and Saharanpur districts of West Uttar Pradesh during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
  - **Jammu & Kashmir:**
    - Continue nursery sowing of late cauliflower and onion. Undertake sowing of mustard and early pea. Continue harvesting of early maturing varieties of rice and maize. Continue planting of potato. Undertake earthing up in cole crops. Continue nursery sowing of *rabi* vegetables. Undertake field preparation for sowing of *rabi* crops. Undertake intercultural operations on toria and vegetables like radish, carrot etc.
    - 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. Complete sowing of leafy vegetables. Continue sowing of pea and land preparation for sowing of *rabi* crops.
    - To control the attack of shoot and fruit borer in brinjal, spray Dimethoate 30 EC @ 1ml/litre of water.
  - **Uttarakhand:**
    - Continue sowing of mustard. Continue harvesting of early and medium varieties of rice. Continue sowing of toria, pea, radish, broccoli and turnip. Continue field preparation for planting of early varieties of potato. Continue transplanting of cabbage and cauliflower. Continue picking up of matured cucurbits. Undertake sowing of wheat.
    - In Hill Zone, continue sowing of pea and toria. Undertake sowing of wheat. Continue harvesting of matured rice, maize, green gram, black gram. Continue nursery sowing of onion. Continue cultivation of mushroom. Continue hoeing in vegetable pea, cabbage, fenugreek, spinach etc. Continue field preparation for sowing of *rabi* crops.
    - To control the root and stem joint rot disease in tomato and chilli, irrigate the roots of the crops with the solution of Trichoderma @ 10 g/litre or Carbendazim @ 1g/litre of water.
  - **Himachal Pradesh:**
    - Continue harvesting of matured rice, maize and pulses. Undertake sowing of mustard, linseed and pea. Continue planting of potato in lower and mid hill regions. Prepare the FYM for the sowing of white button mushroom in low and mid hills regions and prepare the medium for the sowing of Dhingri family Mushrooms. Continue sowing of early varieties of wheat. 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.
    - To control white fly and sucking pest in vegetables spray Imidacloprid @ 1 ml/3litres of water.
  - **Punjab, Haryana & Delhi:**
    - In Punjab, undertake land preparation and sowing of mustard and raya. Continue harvesting of matured maize, green gram. Continue planting of early varieties of potato and pea. Complete sowing of spinach, radish, turnip and carrot. Continue planting of early varieties of sugarcane. Continue planting of seedlings of onion. Continue nursery sowing of tomato. Continue picking up of matured cotton bolls. Undertake harvesting of matured rice.
    - In Haryana, continue intercultural operations in vegetables. Continue field preparation for sowing of mustard. Continue harvesting of timely sown bajra, guar, green gram, black gram and picking up of matured cotton bolls. Undertake harvesting of matured rice.
    - In Delhi, continue harvesting of matured rice. Continue planting of winter sugarcane at optimum soil moisture for better seed germination. Continue sowing of gram and sowing of garlic on raised bed. Continue sowing early mustard, pea and planting of early potato. Continue transplanting of onion. Continue sowing of sarsonsaag, radish, spinach, coriander. Continue transplanting of cauliflower, cabbage, broccoli and tomato. Continue sowing of carrot on raised bed. Continue field preparation for sowing of wheat.
    - In Haryana, due to favourable weather, there are chances of infestation of paddy blast, spray Tricyclazole (Bim or sivik) 75 WP @ 120g mixed with 200 litres of water per acre.



▪ **Uttar Pradesh:**

- In East Uttar Pradesh, keep inputs ready for sowing of wheat. Undertake harvesting of matured rice. Undertake sowing of gram, raya and linseed. Continue sowing of toria. Undertake planting of potato and sowing of pea under optimum soil moisture conditions. Continue harvesting of matured maize, sesame, green gram and black gram. Continue 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, continue transplanting of cauliflower, cabbage, chilli, broccoli and tomato. Undertake sowing of gram and planting of winter sugarcane. Undertake field preparation for sowing of wheat. Continue sowing of carrot and garlic on raised bed. Continue sowing of sarsonsaag, radish, coriander, spinach and fenugreek. Continue transplanting of onion in prepared fields. Continue sowing of toria and planting of early varieties of potato. Continue sowing of pea and mustard under optimum soil moisture conditions.

▪ **Rajasthan:**

- In East Rajasthan, undertake field preparation for sowing of barley. Continue sowing of radish and carrot. Continue nursery preparation for *rabi* vegetables like chilli, brinjal, tomato, cabbage and cauliflower. Continue sowing of early pea, gram and mustard. Continue planting of fruit crops like mango, plum, pomegranate, aonla etc. Continue harvesting of matured maize, black gram, green gram and soybean. Undertake harvesting of matured groundnut.
- In West Rajasthan, continue sowing of radish, turnip and carrot. Undertake sowing of Taramira, gram and mustard at optimum soil moisture condition. Undertake sowing of spinach and coriander. Continue transplanting of cauliflower and cabbage. Continue nursery preparation for onion. Undertake harvesting of matured moth bean and pearl millet.
- In Irrigated North Western Plain Zone, continue picking up matured cotton bolls. Continue sowing of mustard. Undertake sowing of gram and barley.

• **Animal Husbandry**

- In Jammu & Kashmir, calcium should be supplemented in the diet of dairy animals. Deworming of all livestock needs to be done against helminths using Fenbendazole or Closantel.
- In Rajasthan, give deworming medicine against endo parasites to the animals.

• **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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