



National Agromet Advisory Service Bulletin

Friday 1st October, 2020

(For the period 1st October to 5th October, 2020)



Issued by

India Meteorological Department

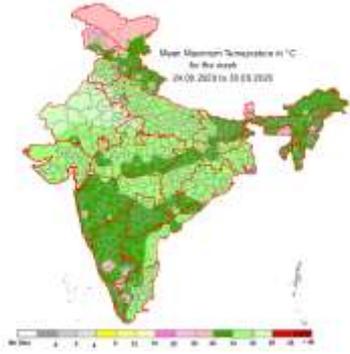
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District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>

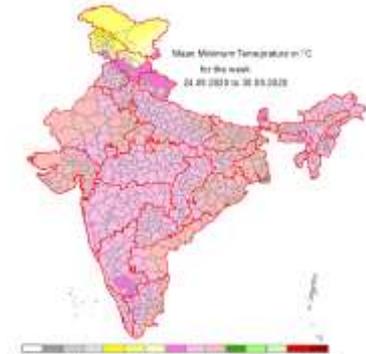
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

spatial distribution of weather parameters for the week 24.09.2020 to 30.09.2020

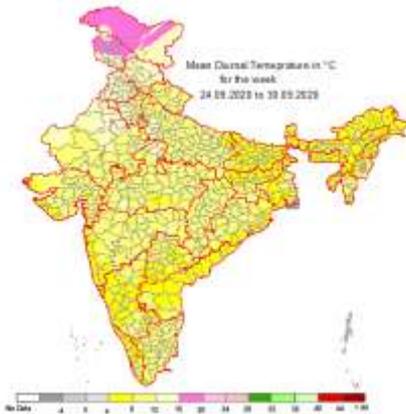
Mean Maximum Temperature (oC) for the week 24.09.2020 to 30.09.2020



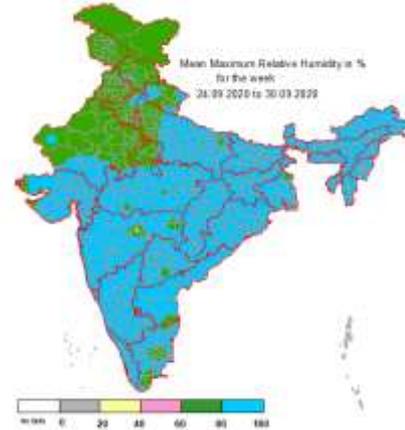
Mean Minimum Temperature (oC) for the week 24.09.2020 to 30.09.2020



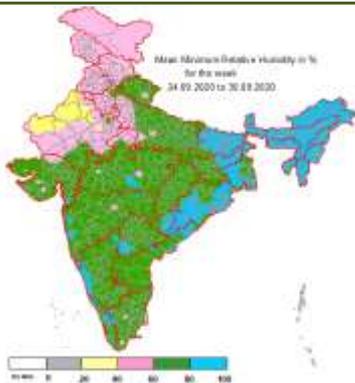
Mean Diurnal Temperature Variation (oC) for the week 24.09.2020 to 30.09.2020



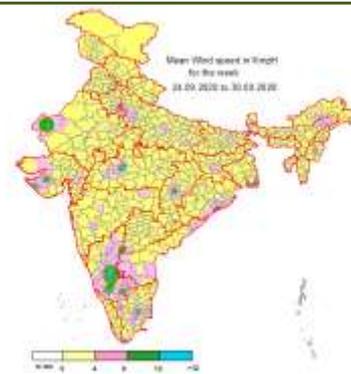
Mean Maximum Relative Humidity (%) for the week 24.09.2020 to 30.09.2020



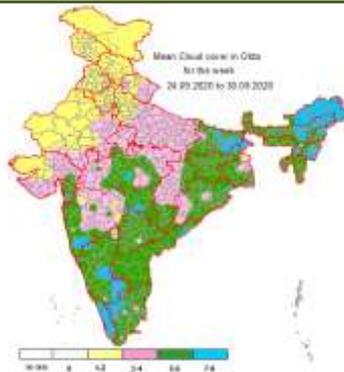
Mean Minimum Relative Humidity (%) for the week 24.09.2020 to 30.09.2020



Mean Wind Speed (km/hr) for the week 24.09.2020 to 30.09.2020

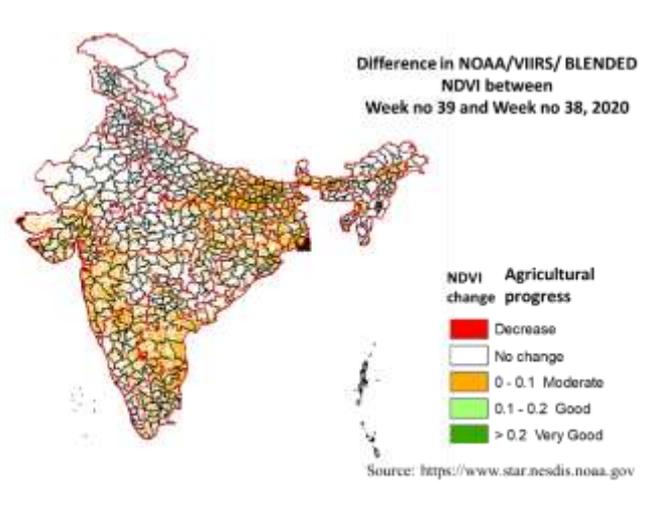
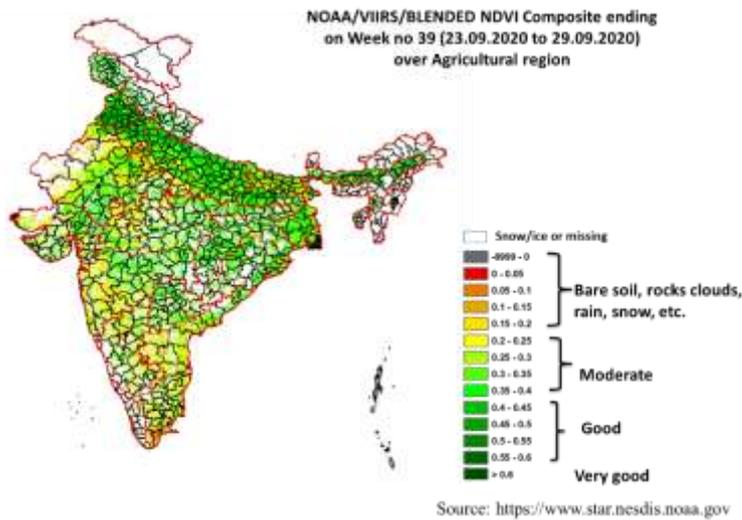


Mean Cloud Cover (okta) for the week 24.09.2020 to 30.09.2020



NOAA/VIIRS/BLENDED NDVI composite for the week number 39 (23.09.2020 to 29.09.2020) over Agricultural regions of India

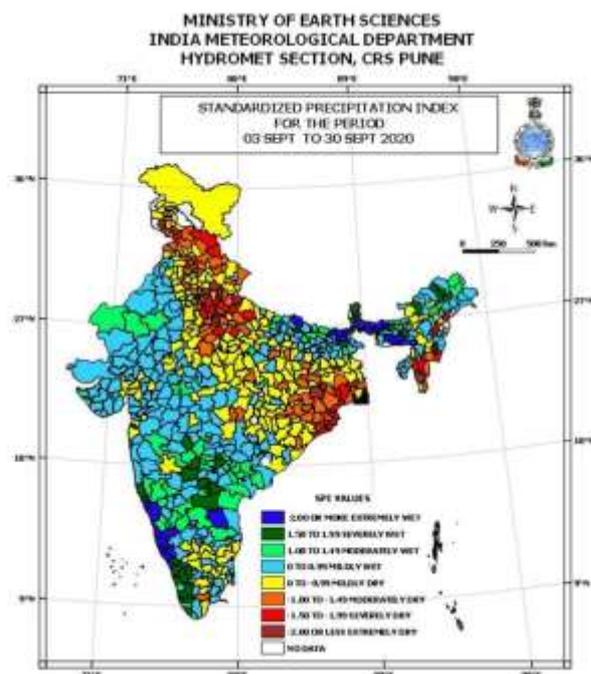
Difference in NOAA/VIIRS/BLENDED NDVI between week number 39 and week number 38, 2020



Agricultural vigour was good in most places of Himachal Pradesh, Uttarakhand; many parts of Jammu & Kashmir (UT), Punjab, Northern part of Haryana, North Eastern states; few places of Uttar Pradesh, Bihar, West Bengal, Jharkhand, Odisha, North Coastal Andhra Pradesh, Telangana, Vidarbha and at isolated pockets of Sikkim, Kerala, North Interior Karnataka, Gujarat and East Rajasthan.

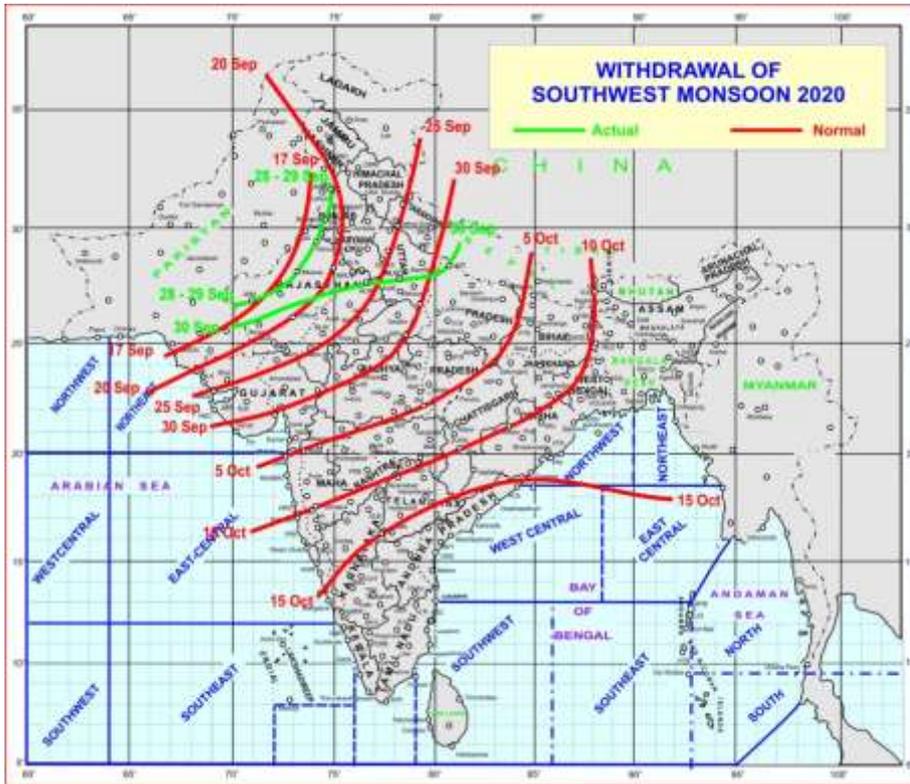
Difference in Agricultural vigour was good in few places of Uttarakhand, Bihar, Andhra Pradesh, Tamilnadu, Karnataka and at isolated pockets of Himachal Pradesh, Uttar Pradesh, East Madhya Pradesh, Jharkhand, West Bengal, Sikkim, North Eastern States, Odisha, Chhattisgarh, Maharashtra, Telangana, Kerala and Jammu & Kashmir (UT).

Standardised Precipitation Index for the period 3rd to 30th September 2020



- Extremely/ Severely wet conditions exist in Cuddapah, Kurnool districts of Andhra Pradesh; East Kameng, East Siang, West Siang districts of Arunachal Pradesh; Barpeta, Dhubri, Kokrajhar, Bongaigaon, Chirang districts of Assam; Araria, West Champaran, Gopalganj, Katihar, Kishanganj, Purnea, Supaul districts of Bihar; Uttara Kannada, Dakshin Kannada, Udupi, Bidar, Gulbarga, Chikmagalur, Kodagu districts of Karnataka; Alapuzha, Cannur, Kottayam, Kozhikode, Malappuram, Palakkad, Thrissur, Trivandrum, Idukki, Kasargod, Pathanamthitta, Wynad districts of Kerala; Sindhudurg, Parbhani districts of Maharashtra; East Garo Hills, East Khasi Hills, West Khasi Hills, Ri-Bhoi districts of Meghalaya; Coimbatore, Nilgiri districts of Tamil Nadu; Cooch Behar, Darjeeling, Jalpaiguri districts of West Bengal; Lakshadweep districts of Andaman & Nicobar Islands; North Sikkim, East Sikkim, South Sikkim districts of Sikkim; North Goa, South Goa districts of Goa; Mahabubnagar, Malkajgiri, Nagarkurnool, Rajanna Sircilla, Siddipet, Wanaparthy, Narayanpet districts of Telangana.
- Extremely/Severely dry conditions exist in Kinnaur, Lahaul & Spiti, Solan districts of Himachal Pradesh; Kathua, Udhampur, Rajouri districts of Jammu; Bhind district of West Madhya Pradesh; Chandernagore district of Manipur; Aizawl, Lunglei, Mamit, Serchhip districts of Mizoram; Kohima, Mon, Wokha districts of Nagaland; Balasore, Bhadrak, Cuttack, Jagatsinghpur, Kendrapara, Purid districts of Odisha; Kanpur Dehat, Sitapur, Aligarh, Bijanpur, Badaun, Bulandshahar, Etah, Firozabad, Mathura, Meerut, Moradabad, Pilibhit, Sahajanpur, Sambhal districts of Uttar Pradesh; Hooghly, West Midnapore district of West Bengal; West Singhbhum, Jamtara, Seraikela-Kharsawan districts of Jharkhand.
- Moderately wet to moderately dry conditions were experienced in remaining districts of the country.

Withdrawal of Southwest-Monsoon 2020



- The withdrawal line of the Southwest Monsoon continues to pass through Lat. 29°N/ Long.81°E, LakhimpurKheri, Shahjhanpur, Alwar, Nagaur and Lat. 26°N/Long.70°E.
- Conditions are becoming favourable for further withdrawal of Southwest-Monsoon from some more parts of Uttar Pradesh & Rajasthan and some parts of northwest Madhya Pradesh during next 2days.

Weather Forecast for next 5 days upto 0830 hours IST of 6th October 2020

- ◆ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ◆ No significant change in temperatures very likely over most parts of the country during next 3-4 days.

5 Day Rainfall Forecast (MID-DAY)

01-October-2020

Met-Sub-Division	01-Oct Today	02Oct Fri	03Oct Sat	04Oct Sun	05Oct Mon
1. Andaman & Nicobar Islands	FWS	FWS	FWS	FWS	FWS
2. Arunachal Pradesh	ISOL	ISOL	SCT	SCT	FWS
3. Assam & Meghalaya	SCT	SCT	FWS	FWS	FWS
4. N. M. M. & T.	FWS	FWS	FWS	FWS	FWS
5. S.H. West Bengal & Sikkim	SCT	SCT	SCT	SCT	SCT
6. Gangetic West Bengal	FWS	FWS	FWS	FWS	FWS
7. Odisha	WS	FWS	WS	WS	WS
8. Jharkhand	SCT	FWS	WS	WS	WS
9. Bihar	ISOL	ISOL	ISOL	SCT	FWS
10. East Uttar Pradesh	DRY	ISOL	ISOL	ISOL	ISOL
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhand	DRY	DRY	DRY	DRY	DRY
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	DRY	DRY	DRY	DRY	DRY
16. J & K and Ladakh	DRY	DRY	DRY	DRY	DRY
17. West Rajasthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	ISOL	DRY	DRY	DRY	DRY
20. East Madhya Pradesh	ISOL	ISOL	ISOL	ISOL	ISOL
21. Gujarat Region	ISOL	ISOL	ISOL	DRY	DRY
22. Saurashtra & Kutch	ISOL	ISOL	ISOL	DRY	DRY
23. Konkan & Goa	ISOL	SCT	SCT	SCT	ISOL
24. Madhya Maharashtra	SCT	SCT	SCT	SCT	ISOL
25. Marathwada	ISOL	ISOL	ISOL	ISOL	ISOL
26. Vidharbha	ISOL	ISOL	ISOL	ISOL	ISOL
27. Chhattisgarh	ISOL	ISOL	SCT	SCT	SCT
28. Coastal A. P. & Yanam	SCT	SCT	ISOL	SCT	SCT
29. Telangana	SCT	ISOL	ISOL	ISOL	ISOL
30. Rayalaseema	SCT	SCT	ISOL	ISOL	ISOL
31. T.N., Puducherry & Karaikal	ISOL	ISOL	ISOL	ISOL	ISOL
32. Coastal Karnataka	SCT	SCT	SCT	ISOL	ISOL
33. North Interior Karnataka	SCT	SCT	SCT	ISOL	ISOL
34. South Interior Karnataka	SCT	SCT	SCT	ISOL	ISOL
35. Kerala & Mahe	SCT	SCT	ISOL	ISOL	ISOL
36. Lakshadweep	DRY	DRY	DRY	DRY	DRY

% 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

01 October (Day 1):

- **Heavy to very heavy rainfall** very likely at isolated places over Odisha and **heavy rainfall** very likely at isolated places over Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Telangana and Tripura.
- **Thundersquall** (speed reaching 55-65 kmph) at isolated places very likely over Andaman & Nicobar Islands, **thunderstorm with lightning** at isolated places very likely over east Chhattisgarh, Jharkhand, West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, North Interior Karnataka, Rayalaseema, Telangana and Coastal Andhra Pradesh & Yanam.
- **Strong Winds** (speed reaching 45-55 kmph) very likely over Andaman Sea. **Squally Weather** (speed reaching 45-55 kmph occasionally) very likely over Northwest & West central Bay of Bengal along & off Odisha coast. Fishermen are advised not to venture into these areas.

02 October (Day 2):

- **Heavy rainfall** very likely at isolated places over Gangetic West Bengal, Odisha, Assam & Meghalaya and Tripura.
- **Thunderstorm with lightning** at isolated places very likely over Chhattisgarh, Jharkhand, West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra and North Interior Karnataka,
- **Squally Weather** (speed reaching 45-55 kmph occasionally) very likely over North west & west central Bay of Bengal along & off Odisha coast. Fishermen are advised not to venture into these areas.

03 October (Day 3):

- **Heavy to very heavy rainfall** very likely at isolated places over Odisha and **heavy rainfall** at isolated places over Jharkhand, Gangetic West Bengal, Assam & Meghalaya and Tripura.
- **Thunderstorm with lightning** at isolated places very likely over southeast Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Gangetic West Bengal, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra and North Interior Karnataka.
- **Squally Weather** (speed reaching 45-55 kmph occasionally) very likely over Northwest & west central Bay of Bengal along & off Odisha coast. Fishermen are advised not to venture into these areas.

04 October (Day 4):

- **Heavy to very heavy rainfall** likely at isolated places over Odisha and **heavy rainfall** at isolated places over Chhattisgarh, Jharkhand, Assam & Meghalaya and Tripura.
- **Thunderstorm with lightning** at isolated places likely over southeast Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra and Coastal Andhra Pradesh & Yanam.
- **Squally Weather** (speed reaching 45-55 kmph occasionally) likely over North west & west central Bay of Bengal along & off Odisha coast. Fishermen are advised not to venture into these areas.

05 October (Day 5):

- **Heavy to very heavy rainfall** likely at isolated places over Odisha and **heavy rainfall** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh & Yanam.
- **Thunderstorm with lightning** at isolated places likely over southeast Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh & Yanam.
- **Squally Weather** (speed reaching 45-55 kmph occasionally) likely over North west & west central Bay of Bengal along & off Odisha coast. Fishermen are advised not to venture into these areas.

Weather Outlook for subsequent 2 days from 6th October to 8th October, 2020

- Fairly wide spread to wide spread rainfall activity with isolated heavy falls likely over parts of northeast & adjoining East India and Andaman & Nicobar Islands. Isolated to scattered rainfall likely over parts of northwest peninsular India. Dry weather likely over rest parts of the country.

Advisory for Fishermen

Squally Weather (speed reaching 45-55 kmph occasionally) very likely over Northwest & west central Bay of Bengal along & off Odisha coast from 2nd to 5th October, Fishermen are advised not to venture into these areas.

Salient advisories

- **Thunderstorm with lightning** at isolated places very likely over Chhattisgarh, Jharkhand, West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra and North Interior Karnataka on 2nd, **Thunderstorm with lightning** at isolated places very likely over southeast Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Gangetic West Bengal, Jharkhand, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra and North Interior Karnataka on 3rd, **Thunderstorm with lightning** at isolated places likely over southeast Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra and Coastal Andhra Pradesh & Yanam on 4th, **Thunderstorm with lightning** at isolated places likely over southeast Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Bihar, Gangetic West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh & Yanam on 5th October,
 - Provide mechanical support to banana, young fruit plants and vegetables and carry out propping up in sugarcane to prevent the crops from lodging due to strong winds.
 - Keep harvested produce at safer places.
 - Keep cattle/goats indoor during thunderstorm.

➤ As **rain/thundershowers** likely **at most/ many places** over Andaman & Nicobar islands, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal and Odisha during the period, over Assam & Meghalaya from 3rd to 5th, over Jharkhand from 2nd to 5th along with **Heavy rainfall** very likely at isolated places over Gangetic West Bengal, Odisha, Assam & Meghalaya and Tripura on 2nd, **Heavy to very heavy rainfall** very likely at isolated places over Odisha and **heavy rainfall** at isolated places over Jharkhand, Gangetic West Bengal, Assam & Meghalaya and Tripura on 3rd, **Heavy to very heavy rainfall** likely at isolated places over Odisha and **heavy rainfall** at isolated places over Chhattisgarh, Jharkhand, Assam & Meghalaya and Tripura on 4th, **Heavy to very heavy rainfall** likely at isolated places over Odisha and **heavy rainfall** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Coastal Andhra Pradesh & Yanam on 5th October,

- Avoid irrigation, intercultural operation and application of plant protection methods and fertilizers to the standing crops.
- Arrange for adequate drainage to avoid water stagnation in standing crop fields.
- Keep the cattle inside shed during heavy rainfall.

➤ **Undertake the following :**

- nursery sowing of *Mundakan* rice in Kerala.
- sowing of safflower, chickpea and hybrid sorghum in North Interior Karnataka.
- nursery sowing or direct sowing of *Samba* rice in Tamil Nadu.
- sowing of mustard in Arunachal Pradesh.
- land preparation and sowing of *Rabi* maize in Hill Zone of Assam.
- land preparation for sowing of improved varieties of toria and yellow mustard in Jharkhand.
- sowing of rabi sorghum, safflower, linseed and chickpea in Vidarbha in Maharashtra.
- sowing of winter vegetables like potato, radish, carrot, turnip, garlic, fenugreek and spinach in Jammu & Kashmir (UT).
- planting of early varieties of potato in Punjab.
- sowing of early mustard in Haryana.
- transplanting of cabbage and cauliflower and land preparation for planting of sugarcane in Uttarakhand.
- sowing of toria, mustard and vegetable pea in West Uttar Pradesh.

Detailed Agromet Advisories

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

Realised Rainfall: Significant rainfall occurred in Idukki and Pathanamthitta districts in Kerala; in Ariyalur, Chennai, Cuddalore, Erode, Karaikal, Karur, Krishnagiri, Madurai, Nagapattinam, Namakkal, Perambalur, Puducherry, Pudukottai, Salem, Sivaganga, Thanjavur, Tiruvannamalai, Tiruvarur, Trichy, Vellore, Villupuram districts in Tamilnadu; Udipi, Uttara Kannada districts of Coastal Karnataka; in all districts of North Interior Karnataka except Haveri district; in Ballari, Bangalore Rural, Bangalore Urban, Chikaballapur, Kodagu, Kolar and Ramanagara districts of South Interior Karnataka; all the districts of Andhra Pradesh and

all the districts of Telangana except Jalalpur, KumaramBheem, Nirmal and Nizambad districts.

Advisories:

- **Thunderstorm with lightning** at isolated places very likely over North Interior Karnataka on 2nd, 3rd, over Coastal Andhra Pradesh & Yanam on 4th & 5th October, provide mechanical support to banana, young fruit plants and vegetables and carry out propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.

Karnataka

- In Coastal Karnataka, undertake planting of banana. Incidence of paddy case worm is noticed; spray Chlorpyrifos or Prefenofos @ 2 gm per litre of water. Set up Rhinolure pheromone trap to trap and kill the Rhinoceros beetles in coconut plantation.
- In South Interior Karnataka, maintain 2.5 to 5 cm water level in rice field to reduce the weeds infestation. inter-cultivation as well as crop rotation of ragi with legumes is recommended, which is not only economical but also helps in soil nutrient enrichment and in reducing the fungal inoculums. Due to congenial weather condition rice crop is affected by stem borer, leaf roller and sucking insects; to manage these pests, spray Chlorophyriphos or Ekalux @ 2 ml /liter of water in clear weather. Due to cloudy weather, thrips and mites are problematic in chili crop; to control, spray Roger @1.7 ml + Dicotal @ 2.5 ml /liter of water in clear weather.
- In North Interior Karnataka, undertake sowing of safflower, chickpea and hybrid sorghum and new plantation of sugarcane crops. Carry out harvesting of soybean and sunflower crops. Early symptoms of downy mildew in cotton is noticed; for control, spray Ridomil gold @ 3 g / litre of water. For control of Taphrina leaf spot in turmeric, spray Propiconazole @1 ml + Sandovit 1 ml per litre of water in clear weather. Stem borer & blight incidence is noticed in ginger in Dharwad district; spray Chloropyriphos @ 3 ml and Metalaxyl MZ @ 2gm / litre of water.

Kerala

- In Problem Area Zone, as a prophylactic measure against the attack of rhinoceros beetle and red palm weevil, it is recommended to clean the top most leaf axils and after cleaning, apply 250gm neem cake mixed with equal volume of sand in the top most three leaf axils.
- In Central Zone, continue land and nursery preparation for second paddy (mundakan) crop. As a prophylactic measure, the root of seedlings can be soaked for 30 minutes in a solution of Pseudomonas culture to control sheath blight, sheath rot, leaf spot disease etc. Before transplanting, spray 20 gram Pseudomonas in one litre of water. The micronutrient deficiency of paddy can be managed during rainy season, by spraying 5 gram of paddy sampoorina in one litre of water.
- In Southern Zone, to control the Phyllisticta leaf spot in ginger, spray Contaf @ 2 ml/ litre or SAAF @ 3 gram/ litre to the leaves.

In Northern Zone, use short duration rice variety seeds for the second crop wherever there is difficulty in availability of water for irrigation, especially during flowering and grain filling stages of the crop.

Andhra Pradesh

- In Ananthpur district, if cotton fields were under water logging conditions due to heavy rains drain out the excess water. If yellowing of leaves and leaf reddening symptoms are observed, take up foliar spray of urea @ 20 g/litre or 19-19-19 @ 10 g/litre of water.
- In Chittoor, The present weather conditions are favourable for stem borer and leaf folder in rice. To control spray Chloropyriphos @ 2.5 ml (or) Cartaphydrochloride @ 2 g/L of water.
- In Nellore district undertake sowing of black gram. Farmers undertaking rice in rabi season are advised to

grow green manure crops like sunhemp, Dhiancha and pillipesara in the main field to provide nitrogen for the rice.

- In YSR (Cadapah) Due to excess moisture in the cotton fields plants fail to absorb nutrients, to recover crops from the excess moisture stress spray 2% urea or 1% KNO₃ solution 2-3 times at 4 to 5 days interval.
- In Krishna, Guntur district apply 30 kg urea 10 kg potash per acre in cotton which is affected due to recent rains. To control bacterial leaf spot, black arm and boll root in cotton spray Copper oxychloride @ 30 g + 1 g of Streptocyclin (or) Plantomycin in 10 liters of water

Telangana

- Drain out excess water from the fields of rainfed crops like cotton, maize, redgram, soybean and vegetables wherever heavy rainfall received.
- In view of the optimum soil moisture, take up sowing of Yasangi groundnut and castor under irrigation facilities. Prevailing cloudy weather conditions are congenial for incidence of square and flower drop in cotton, spray Planofix @ 2 ml per 10 liter of water twice at 10 days interval.
- Prevailing weather conditions are favourable for BPH in paddy. To control, spray Buprofezin @ 1.6 ml or Dinotefuran @ 0.4 gr or Trifuzomyzam @ 0.49 ml or pymetrozone @0.6 gr per litre of water is recommended.

Tamil Nadu

- In Cauvery Delta Zone, weather is conducive for stem borer incidence in rice. To control this apply Chlorpyrifos 20 EC 500 ml/ acre or Profenophos 50 EC 400 ml/ acre.
- In Southern Zone, continue sowing of drought tolerant rice varieties like Anna 4, Co 53, and ADT 45.
- In Western Zone, direct sowing or nursery can be raised for planting Samba paddy with medium duration (135 days) rice varieties Continue the samba transplanting with sufficient drainage. Prevailing weather is conducive for Gall midge in rice. Apply CartapHydrochlorid 4G @ 25 kg/ha.
- In Southern Zone, due to the prevailing weather condition the occurrence of shoot fly noticed in Sorghum. The maggot bores inside the stem and cuts the growing point. Central shoots dried and produce "dead heart" symptom. The infested plant produces side tillers. Spray any one of the following pesticide, Methyl demeton 25 EC @ 500 ml/ha or Dimethoate 30 EC @ 500 ml/ha.
- In High Altitude Hilly Zone, for cardamom plantation, apply 10 tons of farm yard manure, 33 kg Urea, 84 kg Super phosphate and 50 kg MOP per acre.
- In South Zone, for sowing during the ensuing northeast monsoon season under rainfed conditions, select drought tolerant and pest and disease resistant varieties like KC 3 & K12 for Cotton, CoH(M) 6 for Maize, K 8 and K 12 for Sorghum, Vamban 6 & 8 for Black gram, CO 7 & CO 8 in Green gram for rainfed conditions.

Animal Husbandry:

- In Karnataka, spray ectoparasiticide in cattle sheds to remove ectoparasites. In some blocks of Bidar district, lumpy skin disease in animals is noticed which is spreading at an alarming rate; contact the nearest veterinary officer and vaccinate the animals.

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

Realised Rainfall : Rainfall occurred in all districts of Meghalaya and Tripura; all the districts except Lower Subansari and Tirap districts of Arunachal Pradesh; all the districts except Darrang district of Assam; Champhai, Lawngtlai and Saiha districts of Mizoram; Imphal East, Senapati and Tamenglong districts of Manipur; Kohima, Mokokchung, Wokha and Zunheboto districts of Nagaland.

Advisories:

- **Thunderstorm with lightning** at isolated places very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura from 2nd to 5th, over Arunachal Pradesh from 3rd to 5th October, provide mechanical support to banana, young fruit plants and vegetables to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.
- As **rain/thundershowers** likely **at most/ many places** over Nagaland, Manipur, Mizoram & Tripura, during the period, over Assam & Meghalaya from 3rd to 5th along with **Heavy rainfall** very likely at isolated places over Assam & Meghalaya and Tripura on 2nd to 4th, **heavy rainfall** at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 5th October, arrange for adequate drainage to avoid water stagnation in the crop fields. Postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Store the harvested products at safe places. Keep the cattle under shed during heavy rainfall.

Arunachal Pradesh

- In Arunachal Pradesh, drain out excess water from the field of WRC rice (Normal sown) during panicle initiation/ flowering stage and maintain proper water level. Current weather condition is very favorable for Gundhi Bug infestation in WRC rice, hang dead frog trap against Gundhi Bug. Spray Multineem @ 1.5 ml/litre of water against Rice hispa and spray Mancozeb @ 2.5/litre of water against Brown spot in rice on clear sunny days. Spray pesticide neem oil @ 5 ml/litre of water against attack of insect pod borer in sesame. Undertake land preparation for sowing of *Rabi* maize and planting of potato. Undertake harvesting of early sown transplanted rice.

Assam & Meghalaya

- In Hill Zone of Assam, continue nursery sowing/ transplanting of cauliflower and sowing of *Rabi* maize. Make provision of mechanical support to the canes of sugarcane, by tying 3 to 4 canes together by their leaves to prevent lodging. Drain out the excess water and spray Chloropyrifos (20%) @ 2ml/litre to control stem borer and caseworm infestation in *Sali* paddy during panicle initiation stage. Due to favourable weather, there is chance of appearance of Sigatoka leaf spot on the banana plants. Spray Carbendazim @ 0.5gm/litre of water at first appearance followed by 4 numbers of sprays at 30 days interval. Maintain the banana orchard weed free and avoid water stagnation.
- In Lower Brahmaputra Valley Zone, spray Fipronil 5 SC @ 50 ml per bigha of land or Thiamethoxam 25 WG @ 13 gm per bigha of land against stem borer and case worm attack in *Sali* rice at the time of active tillering stage during the rain free weather. Continue nursery sowing of early cauliflower and sowing of maize. Undertake nursery sowing of vegetables, cole crops and sowing of *Rabi* maize.
- In Upper Brahmaputra Valley Zone, maintain a depth of 5±2 cm standing water in the fields of rice. Continue sowing of green gram, radish and early cauliflower. Cloudy weather and rainfall coupled with high humidity and daytime temperature may trigger the occurrence of blast and brown spot disease in *Sali* rice crop. Spray fungicides like Glyodin or Azoxystrobin or Trifloxystrobin at an interval of 15 days under fair weather condition.
- In Barak Valley Zone, maintain 5 cm of the water. Prevailing weather situation may favour for the stem borer and leaf folder infestation at the tillering stage in rice, farmers are advised to monitor the field against these insects and also suggested to spray Thiamethoxam @ 0.3 g/litre or Chlorantraniliprole @ 0.4 ml/litre of water during fair weather. Also spray Imidachlopid 17.8% SL @ 1.0 ml/litre of water against Brown Plant Hopper infestation in rice. Undertake nursery preparation for sowing of winter vegetables and land preparation for rabi pulses like rajma, garden pea.
- In Central Brahmaputra Valley Zone, continue sowing of *Rabi* maize, rapeseed, mustard, *Rabi* pulses and

oilseeds, *kharif* pulses (green gram & black gram) and cole crops. In Sali rice at tillering stage, there is chance of stem borer and caseworm infestation which may be controlled by draining out of excess water or spraying Chloropyriphos (20%) @ 2ml/litre to control the attack.

- In North Bank Plain Zone, continue sowing brinjal and cole crops. Present Weather condition is favourable for heavy infestation of rice hispa, leaf folder, army worm case worm etc. in *Sali* rice field at tillering stage. Spray Chloropyriphos 20EC or Monocrotophos 40EC @ 1.5ml per litre of water after current spells of rain.
- In Meghalaya, ensure proper drainage system in the ginger/turmeric and vegetable crop field. Continue nursey sowing/ transplanting of cole crops. Drain out the field for some time (2-3 days) to facilitate the tillering in *Sali* rice. Spray Azadirachtin 0.15% EC @ 3ml/litre or other neem formulation against Hopper, Stem Borer, Leaf Fodder in Sali/Kharif Rice (Lowland) after current spells of rain.

Manipur, Mizoram, Tripura and Nagaland

- In Manipur, spray Dithane M-45 @ 2ml/ litre water to control Tikka disease in groundnut. Spray Hexaconazole 5% EC @2ml/ litre of water against rust in soybean. In rice, during panicle initiation to flowering stage, maintain optimum water level in the *Kharif* rice fields. Spray Hexaconazole @2ml/ litre of water against sheath blight or sheath rot disease in rice and spray Copper Hydroxide 53.8% DF @ 3g/ litre water during flowering stage or Tricyclazole 18.0%w/w + Tebuconazole 14.4 % w/w SC @2ml/litre water against Smut disease. Spray Acephate 95%SC @1ml/litre of water 2 times at 7 days interval or Buprofezin 15% + Acephate35% WP @ 2.5g/ litre water twice with 15days interval against White back plant hopper/ aphid in rice. Spray Streptocycline @ 2g/15 litre of water (at least three pumps per sangam) or Copper Hydroxide 53.8 % DF @ 3g/ litre of water against Bacterial Leaf Blight in rice. Undertake plant protection methods fter current spells of rain.
- Continuenursery raising of cole crops (cauliflower/ cabbage/ broccoli) and harvesting of ginger.
- In Mizoram, continue harvesting of Jhum rice, sorghum and broom millet on sunny days. Due to high humidity (90-95%) and moderate rainfall, possibility of rust disease on soybean is higher. So farmers are advised to spray Hexaconazole 5% @ 2.0 ml/litre of water to control the disease. Apply Cypermethrin 2.0 ml/litre of water against gundhi bugs infestation in normal rice at Panicle emergence stage if attack is above ETL. Due to fluctuating humidity, there is chance of tikka disease in groundnut during flowering stage. Apply Dithane Z 78 @ 1.5 g per litre of water with linseed oil as sticker at an interval of 15 days. Spray Copper Oxy Chloride (COC) or Ridomil Gold @ 2 g/litre of water during sunny days to reduce shoot rot disease in vegetative stage of ginger. Undertake plant protection methods fter current spells of rain.
- In Tripura, apply mulching with locally available material for moisture conservation in black & green gram. Maintain 5 cm water in the field of *Aman* rice during panicle initiation/ flowering stage. Top dressing with urea@ 10 kg per kani. Give a foliar spray of Zinc Sulphate 0.5% (5gm per litter of water). For better grain filling a give a spray of Boran @ 2gm per litre. Keep field weed free. Undertake land preparation for sowing of winter vegetables like tomatoes, cabbage, cauliflower etc.
- In Nagaland, spray Neem Seed Kernel Extract 5 % against leaf folder disease in rice. Continue harvesting of groundnut and transplanting of onion and cole crops. Carry out weeding and earthing up in ginger, turmeric, Naga king chilly and large cardamom. Organic mulching may be done in these crops in order to retain moisture for the upcoming days. Drench around the infected ginger plants, after slightly removing of soil with Bordeaux mixture (1%) or Copper Oxychloride @ 2g/1 litre of water against Soft rot disease in ginger during rhizome development stage and also remove the badly affected plants. Spray Copper

fungicides to control Bacterial wilt disease (2% Bordeaux mixture.) in brinjal. Undertake plant protection methods after current spells of rain.

Animal Husbandry

- In Northeastern states, carry out immunizations against BQ, HS, Foot and mouth disease as well as anthrax diseases in livestock like cows, buffaloes, goats and pigs. Also carry out vaccination (RDF1) against Ranikhet disease in one week old chicks and against Gamboro disease in two weeks old chicks. Animals should not be fed with water submerged rotten grasses.
- In some parts of Assam, infection of Lumpy skin disease in livestock has been observed. The disease is characterized by mild fever for two-three days, followed by development of stiff, round nodules on the skin all over the body. If such symptoms are observed, consult local veterinarian at the earliest for proper diagnosis and immediate treatment.

Fishery

- In Lower Brahmaputra Valley Zone of Assam, 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.
- In North Bank Plain Zone of Assam, to maintain optimum concentration of dissolved oxygen in the ponds, regular aeration may be done by splashing the water by hand or bamboo or by using mechanical aerator.

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

Realised Rainfall: Significant rainfall occurred in all districts of Andaman & Nicobar Islands; in all districts except Bhabua and Rohtas districts of Bihar; in Deogarh, Dumka, Godda, Ghumla, Koderma, Lohadaga, Pakur, Sahebganj and Simdega districts of Jharkhand; in Balasore, Dhenkanal, Ganjam & Nayagarh districts of Odisha; in East Midnapore, Kolkata & South 24 Paraganas in Gangetic West Bengal and in all districts of Sub-Himalayan West Bengal & Sikkim. Weather remained dry/mostly dry over the rest of the region.

- **Advisories: Thunderstorm with lightning** at isolated places very likely over Jharkhand on 2nd & 3rd, over West Bengal & Sikkim on 2nd, over Bihar and Gangetic West Bengal from 3rd to 5th October, provide mechanical support to banana, young fruit plants and vegetables and carry out propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.
- As **rain/thundershowers** likely at **most/ many places** over Andaman & Nicobar islands, Gangetic West Bengal and Odisha during the period, over Jharkhand from 2nd to 5th along with **Heavy rainfall** very likely at isolated places over Gangetic West Bengal, Odisha on 2nd, **Heavy to very heavy rainfall** very likely at isolated places over Odisha and **heavy rainfall** at isolated places over Jharkhand, Gangetic West Bengal on 3rd, **Heavy to very heavy rainfall** likely at isolated places over Odisha and **heavy rainfall** at isolated places over Jharkhand on 4th, **Heavy to very heavy rainfall** likely at isolated places over Odisha on 5th October, arrange for adequate drainage to avoid water stagnation in the crop fields. Postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Store the harvested products at safe places. Keep the cattle under shed during heavy rainfall.

Odisha

- In Western Undulating Zone, green gram crop is at harvesting stage; harvest the matured pods and dry them under sun properly for safe storage. Arhar crop is at vegetative growth (eleven to thirteen week)

stage; leaf folder and defoliators may feed on the leaves at this stage; to control, spray 400 ml Profenofos 50 EC @ 2ml/litre of water per acre crop area.

- In North Eastern Coastal Plain Zone, drain our excess water from sugarcane field. To minimize infestation of top shoot borer in sugarcane, spray Fipronil 5Sc @ 2ml or Lambacyhalothrin 4.9CS @ 1ml/litre of water. To prevent stem & fruit borer in brinjal and okra crops, apply 70 ml Spinosad or 60gm Ammonium benzoate in 200 litres of water per acre.
- In Eastern Ghat High Land Zone, undertake sowing of pre-*Rabi* green gram and black gram; apply 4 kg urea, 35 kg DAP and 13 kg MOP per acre during final land preparation; before sowing, treat seeds with Rhizobium culture.

Bihar

- In North East Alluvial Zone, carry our transplanting of pointed gourd creeper in flood affected areas. Undertake sowing of vegetable pea in the field. Monitor Gundhi bug in timely sown rice crop during grain forming stage; apply Folidol dust @ 10-15 kg per hectare during early morning or late evening hours.
- In South Bihar Alluvial Zone, prevailing weather condition is suitable for occurrence of fruit and shoot borer in vegetable crops; spray neem seed extract (4 %) @ 2ml/liter of water five times at 10 days' interval or spray Emamectin Benzoate @ 3g in 10 liters of water. Leaf folder attack is found in most of the rice fields; to control, spray Profenofos @ 2 ml per liter of water.

Jharkhand

- In South Eastern Plateau Zone, undertake sowing of toria and chick pea crops in medium fallow land. Undertake nursery raising of onion. Make 3 m long, 2 m wide raised beds with 15 cm height. Treat the beds with 5g Thiram per beds; after sowing, cover the seeds with dried soil or dried powdered cow dung followed with straw; sprinkle water to the beds. Undertake sowing of mid-early and late varieties of cauliflower.
- In Western Plateau Zone, cultivate rapeseed (toria) crop; for cultivation in 1 acre use 2-2.5 kg of seeds, 44 kg Urea, 66 kg S.S.P. and 16 kg Muriate of Potash. Cultivate early table pea crop on ridge; for cultivation in 1 acre use 40 kg seeds, 35 kg Urea, 200 kg S.S.P. and 25 kg Muriate of Potash.

West Bengal

Sub-Himalayan West Bengal:

- In Hill Zone, carry out harvesting of large cardamom. Use yellow sticky traps (@10 traps/ha) to manage aphids in the soybean field. In case of blast disease infestation in Kharif paddy, spray Tricyclazole 0.5 gm or Isoprothirole 1ml /litre of water.
- In Terai Zone, to control yellow stem borer, spray 2 ml Fipronil or 2.5 ml Acetamiprid + Chlorpyrifos par litre of water. To control late blight disease in tomato, spray 2.5 g Metalaxyl + Mancozeb per litre of water; avoid excess nitrogen fertilizer and close spacing of plants.

Gangetic West Bengal:

- In the Coastal Saline Zone, to control BLB attack in Aman paddy at panicle initiation stage, drain out excess water as much as possible to prevent delayed flowering; apply potash fertilizer; spray Streptocycline @ 0.2g/litre of water + Planktomycin @ 1-2g/litre of water + Copper fungicide or blue copper @ 2g/litre of water; follow at least 3 spraying.
- In New Alluvial Zone, false smut may appear in basmati(paddy) crop; symptoms include increase in grains size with brown colored fungus inside; to control, spray Blitox 50 @ 500 g per acre at 10 days' interval (2-3 times). Keeping in view of suitable weather conditions, undertake sowing of early mustard at seed rate 1.5-2 kg per acre; treat seeds with Captan or Thairam @ 2.5 g per kg seeds.

Andaman & Nicobar Islands

- In Andaman & Nicobar Islands, cover the vegetable nursery with polythene sheet to avoid damages due to the rain. Carry out weeding in brinjal, okra and chilli grown in upland area and provide drainage channels. Identify the rodent movement tracks in coconut garden and place rodent trap accordingly. Store the harvested vermi-compost in dark and cool place by maintaining 40 % moisture in it.

Animal Husbandry

- Provide mineral mixture supplemented to the egg laying birds or layers to improve egg production. Ranikhet disease (RD) and Infectious Bursal Disease (IBD) outbreak is noticed in poultry farm mainly during winter season; vaccinate birds against RD and IBD in time.

Fishery

- In Odisha, surround ponds with protective nets so that fishes do not escape from the pond; add supplementary feed (rice/wheat bran & mustard oil cake and rice/wheat bran) @ 4-6% of total fish biomass on daily basis; to protect fish from microbial attack, clean raceways regularly at 15 day intervals and give regular rock salt baths to the stock.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Realised Rainfall: Significant rainfall occurred in all districts of Konkan & Goa; Kolhapur and Nandurbar districts of Madhya Maharashtra; Aurangabad, Latur, Nanded, Osmanabad and Parbhani districts of Marathwada; Bharuch, Chhota Udepur, Dadra Nagar Haveli (DNH), Narmada, Navsari, Panchmahal, Surat, Tapi, and Valsad districts of Gujarat Region and in GirSomnath district of Saurashtra & Kutch.

Advisories:

- **Thunderstorm with lightning** at isolated places very likely over Madhya Maharashtra on 2nd, over Konkan & Goa, Madhya Maharashtra on 3rd & 4th October, provide mechanical support to banana, young fruit plants and vegetables and carry out propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.

Maharashtra

- In Konkan, continue harvesting of matured rice in Sindhudurg, Palghar and Ratnagiri districts. Carry out drum rolling operation in groundnut (peg formation stage) in early varieties for better productivity of crop. Undertake application of second dose of fertilizers Urea @ 750 g and Muriate of potash @ 660 g in Coconut. Due to intermittent rainfall and cloudy weather condition, there is possibility of incidence of blast disease in finger millet crop, for control spray Carbendazim @ 10 g per 10 liters of water during clear weather.
- In Madhya Maharashtra, continue sowing of rabi sorghum, bengal gram and safflower. Continue harvesting of early sown rice, groundnut, matured soybean, matured pearl millet and maize during clear weather. Keep the harvested produce in safer places. Undertake transplanting of rabi onion, apply Nitrogen @ 40 kg, Phosphorous 2 40 kg and Muriate of Potash @ 60 kg per ha as basal dose at the time of transplanting. To control sigatoka (leaf spot) disease in banana, spray Diathane M-45 or Copper Oxychloride @ 25 g per 10 liters of water during clear weather. To control pod borer in pigeon pea (bud initiation stage), spray 5 % Neem seed extract. To control fruit and shoot borer in okra, spray Bacillus thuringiensis variety Galeri (BTG- 4) @ 20ml per 10 litre of water for three times with 15 days interval.
- In Marathwada, undertake harvesting of early sown soybean in Parbhani, Jalna, Hingoli, Beed, Latur and Nanded districts during clear weather. Undertake harvesting of pearl millet in Osmanabaddistrict and harvesting of maize in Aurangabad district. Keep the harvested produce in safer place. To control rhizome fly in turmeric, spray Quinalphos 25 % @ 20 ml or Diamethoate 30 % @ 10 ml per 10 liters of

water along with sticker during clear weather.

- In Vidarbha, continue sowing of rabi sorghum, safflower, linseed and chickpea. Undertake intercultural operation like weeding in pigeon pea during clear weather. Continue harvesting of matured soybean during clear weather. Keep the harvested produce in safer place. If infestation of pink boll worm larvae within flowers in cotton is more i.e. 10% (ETL), spray Profenofos 50% EC @ 30 ml or Chlorpyrifos 50% EC @ 20 ml per 10 litres of water during clear weather. Undertake foliar spray of 2% Urea (200 g Urea +10 liter water) in cotton (flowering stage) and 2% DAP (200 g DAP +10 litre water) at boll formation stage for better productivity. To control stem fly in turmeric, spray Nimboli Arc of 5 % per 10 liters of water during clear weather.

Gujarat

- In North Gujarat, continue harvesting of matured maize, green gram, cowpea, groundnut, sesame and pearl millet crops. Install the light trap to control population of leaf webber in sesame crop. For control the Anaar caterpillar in pomegranate, spray Phezolon 35 E.C. @ 20 ml /10 liters of water in clear weather.
- In Saurashtra and Kutch, undertake harvesting of groundnut, sesame, green gram, black gram and soybean crops at physiological maturity. Carry out intercultural operations in castor and pigeon pea crops. In all vegetable crops, whitefly infestation observed above ETL; for control, spray 500 ml of 5 % neem seed extract or 50 ml neem oil or Acetamiprid 20 % SP @ 5.0 g or Imidacloprid 17.8 SL @ 3 ml/10 litres of water. Heavy infestation of semilooper is observed in castor; spray Chlorpyrophos @ 30 ml in 10 litres of water.
- In South Gujarat, undertake harvesting of rice crop, cucurbits in clear weather and land preparation for new planting of sugarcane. Spray Tebuconazole 25% EC @ 10 ml or Propiconazole 25% EC @ 10 ml in 10 liters of water, under clear weather, against leaf blight/Maydis leaf blight infestation in maize.
- In Middle Gujarat, carry out picking of matured fruits of chili, brinjal. Continue harvesting of matured ear heads of pearl millet and store in well ventilated godowns. For control of sucking pest like white fly in vegetable crops, spray Acetamiprid 20 % SP @ 5 g or Imidacloprid 17.8 SL @ 4 ml in 10 litres of water in clear weather.

Animal Husbandry

- In Gujarat, keep the fodder at safe place to avoid spoilage due to rainfall.

CENTRAL INDIA [M.P., CHHATTISGARH]

Realised Rainfall: Rainfall occurred in Chhatarpur, Chindwara, Damoh, Jabalpur, Rewa and Sagar districts of East Madhya Pradesh; in Alirajpur, Asoknagar, Barwani, Dhar, Guna, Indore, Khargone, Raisen, Rajgarh, Ratlam, Sehore, Shajpur, Ujjain and Vidisha districts of West Madhya Pradesh and in Koriya and Sukma districts of Chhattisgarh during the week.

- **Advisories: Thunderstorm with lightning** at isolated places very likely over Chhattisgarh from 2nd to 5th, over East Madhya Pradesh from 3rd to 5th October, provide mechanical support to banana, young fruit plants and vegetables and carry out propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.

Madhya Pradesh

- In Malwa Plateau Zone, harvest the matured soybean crop (immediately after change in pod colour) in order to minimize the yield losses due to shattering as well as to prevent quality deterioration due to rains; store harvested crop in safe place covering it with Tarpolin. In present weather condition, field preparation should be started for *rabi* crops. Ploughing and planking should be done properly to conserve the moisture in the

soil. Field sanitization is advised before sowing of *rabi* crop. Bunds, channels, uncultivated fields and field roads should be cleaned by removing weeds also use fully decomposed FYM or compost before sowing of crops and vegetable as it improves the physical and biological properties of soil and thus increases the water retention capacity as well as nutrient status of the soil.

➤ In Nimar Valley Zone, present weather conditions are suitable for sowing of early pea. Seed should be treated with fungicides, Captan @ 2.0 gm/kilogram and after that with crop-specific *Rhizobium* culture. For the management of boll rot in cotton, prophylactic spray with Copper Oxychloride 400 gm + Streptocyclin 20 gm in 200 lit. of water/acre may be taken up. Continue harvesting of soybean. If Groundnut crop is infested with *Cercospora* leaf spot (Tikka) disease, spray the crop with Carbendazim 1 gm or Mancozeb 2 gm/litre of water..

➤ In Bundelkhand Zone, farmers are advised to arrange the seed and fertilizer for sowing of potato and garlic along with the preparation of the fields. Start the sowing to early sown the raddish, fenugreek, spinach, corianders and turnip.

Chhattisgarh

➤ In Chhattisgarh Plain Zone, maintain 5-7cm water level in the rice fields. Farmers are advised picking of matured pods of black gram and green gram. Winter vegetables like cauliflower, cabbage and kholkhol early varieties should be selected and nursery sowing may be done. Preparation for nursery sowing of tomato, brinjal, chillies and capsicum may be done. In some parts, hoppers insects are being observed in rice. Crops should be properly monitored and if insects are being observed more than @ 10-15 per plant then Buprofenzic @ 800 ml should be sprayed. In case insects keep multiplying after 15 days then Dinotofuron @ 200 gram/ hectare mixed in 500 litre water should be sprayed preferably in evening time in the lower parts of plant.

➤ In Northern Hill Zone, If infestation of Brown Plant Hopper occurs (5-10 hoppers/hill) in rice, it is advised to alter the micro-climate of the rice field by alternate wetting and drying technique (water should not stand in the field for long time). If problem still persists, spray Pymetrozine 50% WG @ 120 g/acre or Dinotefuran 20 % SG @ 80 g/acre or Imidacloprid 17.8% SL @ 50 ml/acre or Acephate 75% SP @ 400 g/acre. Use only pesticides recommended for brown plant hopper at recommended dose only. To control aphid in maize, farmers are advised to spray imidacloprid 200 SL @ 150 ml/ha.

➤ In Bastar Plateau Zone, spray *Pseudomonas* @ 10 g /litre of water or Tebuconazole (50%) + Trifloxystrobin 25 WG @ 0.40 g /litre of water to control blast disease in paddy. Apply Rynaxypyr 150 gm/ha to control stem borer in rice. If swarming caterpillar are seen in rice fields, spray Quinalphos 25 EC @ 2 ml / litre of water.

Animal Husbandry

➤ In Chhattisgarh, Weed management and cleanliness of weeds around cattle sheds, poultry sheds and ponds should be done so that flies, mosquitoes breeding is controlled. Cattle sheds should be well protected from flies and mosquitoes to maintain milk production and prevention from disease.

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

Realised Rainfall :Significant rain occurred in all districts except Farrukhabad, Fatehpur, Hardoi, Kannauj, Kanpur city, Kanpur dehat, Kaushambi, Lucknow, Mirzapur, Raibareilly, Sitapur, Sonbhadra and Unnao districts of East Uttar Pradesh; Mahoba district in West UP; Pratapgarh district in East Rajasthan; Bageshwar and Nainital districts of Uttarakhand. No significant rainfall occurred over rest of the region.

Advisories:

➤ **Thunderstorm with lightning** at isolated places very likely over southeast Uttar Pradesh, from 3rd to

5thOctober, provide mechanical support to young fruit plants and vegetables and carry out propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm

UTs of Jammu & Kashmir and Ladakh

- In Sub Tropical Zone, undertake harvesting of early maturing varieties of rice. Continue harvesting of early sown matured maize cobs. Apply irrigation to late sown maize crop. Continue harvesting of matured green gram pods. Undertake sowing of winter vegetables like potato, radish, carrot, turnip, garlic, fenugreek and spinach.
- In Cold Arid Zone, undertake harvesting of carrot, cabbage and turnip. To control blight and leaf spot on tomato, chilli, brinjal and capsicum; spray with Mancozeb 75WP @ 0.3% or Hexaconazole 5EC @ 0.05%.
- In Intermediate Zone, continue sowing of toria. Undertake harvesting of early sown maize. To control the attack of gundhi bug on rice, spray Monocrotophos 36 WSC @ 1.5 litres/ hectare during clear weather conditions. Carry out thinning of thick growing nursery of cole crops. Apply light irrigation with sprinklers to nursery beds of root crops. Undertake sowing of leafy vegetables.
- In Valley Temperate Zone, continue harvesting of matured maize cobs. Continue harvesting of rice. Carry out thinning operation in carrot, beet, turnip and radish. Undertake sowing of leafy vegetables. Undertake land preparation for sowing of peas.

Himachal Pradesh

- In High Hill Temperate Dry Zone, carry out weeding in tomato and cucumber and apply irrigation as per requirement. Undertake harvesting of potato, cauliflower and cabbage.
- In Mid Hills Sub Humid Zone, to control the stem borer in apple, pear, peach, plum and apricot, clean the borer's hole with a soft wire and put a piece of cotton dipped in petrol or Methyl Parathion in the hole and close the hole by putting clay soil .
- In Sub Montane and Low Hills Sub Tropical Zone, continue harvesting of maize. Undertake harvesting of matured rice and pulses. Continue field preparation for early sowing of mustard. Continue land preparation for early sowing of wheat. Undertake harvesting of peas, cabbage and cauliflower.
- In Mild Hills Sub Humid Zone, undertake transplanting in the mid hills where the nursery of cauliflower, broccoli is 26-28 days old. Continue planting of button mushrooms.

Punjab, Haryana, Delhi

- In Western Zone of Punjab, due to favourable weather for root crops, continue sowing of “desi” varieties of radish (Punjab Safed Mooli2), turnip (L-1) and carrot (Punjab Black Beauty and PC 161). Weather is suitable for planting of evergreen fruit plants like citrus, mango, guava, litchi, loquat, sapota etc. Irrigate the crops as per need. As per prevailing humid weather conditions, regularly monitor cotton crop for infestation of whitefly and jassid. If the damage/population of sucking insect pests reaches economic threshold levels, spray the crop with Ulala 50 WG (flonicamid) @ 80g/acre or Osheen 20 SG (dinotefuran) @ 60g/ acre or Polo@ 200g/acre for the control of whitefly and jassid.To control fungal foliar leaf spots, cotton crop should be sprayed with Amistar Top or 200 ml/acre in 200 liters of water at 15-20 days interval. In paddy fields if more than 5% dead hearts due to paddy stem borers, spray 20 ml Fame 480 SC or 170g Mortar 75 SG in 100 litres of water/acre during vegetative stage.
- In Western Plain Zone of Punjab, complete the planting of sugarcane in the first fortnight. Intercropping of wheat, raya, toria, gobhisarson, pea, gram, potato, cabbage, radish, garlic etc. can be done successfully in this crop. Undertake sow raya varieties RLC-3, PBR 357, PBR-210, RLM-619, PBR-91 under irrigated conditions and PBR-97 under rainfed conditions. The optimum period for sowing raya is the second fortnight of October.

- In Undulating Plain Zone of Punjab, weather is ideal for planting of potato, transplanting of cauliflower. Complete harvesting of black gram, green gram and sun dry properly before storing/marketing. Weather would be favourable for harvesting and marketing of mature rice/basmati, corn/maize. Plan irrigation and fertilizer application in sugarcane. To save crop from Pyrrilla damage, spray sugarcane crop with 600 ml Dursban 20 EC (chlorpyrifos) in 400 litres of water per acre with manually operated sprayer. Apply need based irrigation to newly planted evergreen fruit trees and nursery plants in view of expected dry weather in coming week.
- In Central Plain Zone of Punjab, continue transplanting of mid-season cauliflower and also the best time for sowing of carrot, broccoli, Chinese cabbage, spinach. Suitable time for planting of evergreen fruit plants like citrus, mango, guava, litchi, loquat, sapota, etc. Save the rice crop from sheath blight by keeping the bunds of the field clean; if the symptoms are observed, spray Nativo @80 g or Amitsar Top/Tilt/Folicur/Pikapika@200ml in 200 litres of water per acre towards the base of crop.
- In Western Zone of Haryana, undertake picking of cotton, apply irrigation/chemical spray in existing crops and complete threshing in bajra, pigeonpea. Prepare the fields for mustard crop, keep arrangements for the fertilizers and varieties seed of mustard crop.
- In Eastern Zone of Haryana, undertake sowing of early mustard, carrot early pea and spinach on ridges. Under present weather condition, monitor paddy for infection of bacterial leaf blight. If paddy leaves are yellowing, spray solution of copper hydroxide 77 WP @ 1.25 kg/ha mixing with 150 liters of water at 10-12 days intervals. Monitor regularly the cotton crop for white fly attack carefully, if population reaches 6 white flies per leaf in the upper canopy before 10 AM only then farmers are advised to spray 80 g Ulala 50 WG/200g Polo in 125-150 liters of water per acre. To prevent the incidence of mealy bug on the crop, remove all the weeds growing around the crop fields.
- In Delhi, undertake sowing of early pea, radish, spinach, amaranths, sweet corn and baby corn on ridges. Undertake sowing of early mustard - Pusa Sarson-28, Pusa Tarak etc. Undertake transplanting of brinjal, tomato, chilli and early cauliflower on ridge whose seedlings are ready. Under the present weather condition, monitor paddy crop for the infection of bacterial leaf blight. In present weather conditions, false smut may appear in basmati (paddy) crop, spray Blitox 50 @ 500 grams per acre at 10 days' interval (2-3 times). In present weather conditions termites may damage crops and vegetables, spray Chlorpyrifos 20 EC @ 4 ml/litre of water with irrigation water. Keeping present weather in view, monitor the fields regularly. Spray Imidacloprid 17.8 % SC @ 1.0 ml / 3 lit. of water against white flies and other sucking pests in all crop and vegetables when sky remains clear.

Uttar Pradesh:

- **In East Uttar Pradesh**, undertake transplanting of brinjal, tomato, chilli and early cauliflower on ridge is advised for those farmers whose seedlings are ready. In present weather conditions, False smut may appear in paddy crop. Symptoms include increase in grains size with brown colored fungus inside, then spray of Blitox 50 @ 500 grams per acre at 10 days interval (2-3 times) is advised. To control stem borer in paddy crop, release Trichogramma parasite at an interval of 8 – 10 days. During inflorescence formation in maize crop, maintain optimum moisture in the fields. Farmers should do weeding and hoeing in the standing crops and vegetables to protect them from weeds and keep proper monitoring of their vegetable crop to avoid insect-pests. Monitor insect pest and disease infestation in cauliflower and brinjal, if it goes to ETL then apply recommended control measures.
- **In West Uttar Pradesh**, continue sowing of toria, mustard and vegetable pea. Prepare the fallow fields for Potato cultivation. Undertake sowing of rapeseed and coriander. Undertake transplanting of capsicum, cauliflower and cabbage. For prevention of stem borer in brinjal, remove the affected part of

plant and spray neemgiri 4% at 10 days interval. To prevent bacterial blight disease in the paddy in which the ends and edges of the leaves begin to dry, spray with streptomycin 15 g and 500 g copper oxychloride solution in 200 liters of water. Irrigate in the stage of pod formation in groundnut. The appropriate time for planting of sugarcane in the autumn is October month. Undertake weeding in the rapeseed within 20 days of sowing. There is a possibility of infestation of *Sundaipest* in sesame crop, so to prevent it, spray Spermethrin 25% EC @ 0.5 liters / ha in 500-600 liters of water in clear weather.

Uttarakhand

- In Bhabar and Tarai Zone, continue harvesting of rice. Carry out hoeing operation in cabbage and cauliflower. Apply mulch to conserve the moisture after hoeing in pea, radish, cabbage and cauliflower crops. Continue harvesting of maize during clear weather conditions. Continue field preparations for sowing of potato.
- In Hill Zone, continue sowing of onion seeds in well prepared beds. Undertake seed treatment before sowing. Continue land preparation for sowing of potato. Carry out weeding/ hoeing operations after 20-25 days of emergence in vegetable pea.
- In Sub Humid Sub Tropic Zone, undertake sowing of sugarcane. Undertake sowing of Barseem and Lucern crop for fodder. Carry out intercultural operations in snake gourd to maintain soil moisture. Symptoms of Sheath Blight in rice crop are dusty spots on rice stems and spots surrounded by violet colored patches. Spray Hexaconazole fungicide @ 1ml/ litre of water on the affected parts. If necessary, repeat the spray after 12-15 days.

Rajasthan

- In Irrigated North Western Plain Zone, start first picking of cotton at 50 to 60 percent boll blooming. Preparation of field can start for early sowing of mustard. For this, farmers can buy certified seeds and fertilizers and get the soil tested and use nutrients accordingly.
- In Semi Arid Eastern Plain Zone, undertake field preparation for the sowing of rainfed Taramira. Farmers are advised to procure improved varieties seed (RTM-314 and RTM-2002), fertilizers and chemical in advance for the sowing of crops.
- In Arid Western Plain Zone, undertake sowing of Radish, Spinach, Methi and Carrot. Transplant the seedling of Cabbage and Cauliflower. Make nursery for late Cabbage and Cauliflower. For controlling sucking insects (aphid, jassid and white fly) in cotton, groundnut, cluster bean and moth bean, spray Monocrotophos 36 SL 250 ml or Dimethoate 30 EC 300 ml or Methyl Dimeton 25 EC 300 ml per bigha or Imidacloprid (17.8 SL) 0.005 % (3 ml/10 liter water) spray may be repeated at an interval of 15 days if needed.
- In Sub Humid Southern Plain and Aravali Hill Zone, harvest the kharif crops where the crops are at physiological maturity and vacate the fields for sowing of rabi crops like mustard and gram under conserved moisture conditions. Ploughing and planking should be done properly to conserve the moisture in the soil. Sowing of early mustard should be done.

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.