



National Agromet Advisory Service Bulletin

Friday 25th October 2019

(For the period 25th to 29th October 2019)



Issued by

India Meteorological Department

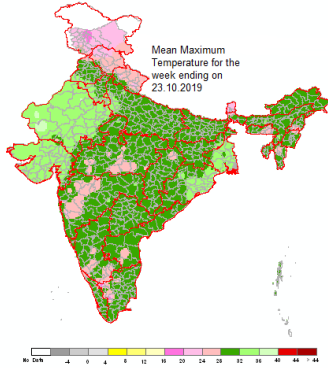
Weblink For

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

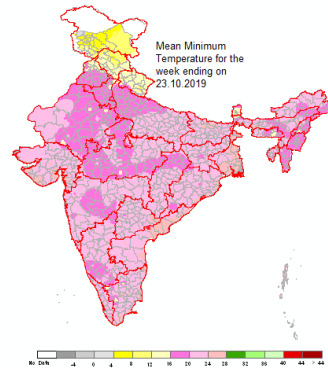
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Spatial distribution of weather parameters for the week ending on 23.10.2019

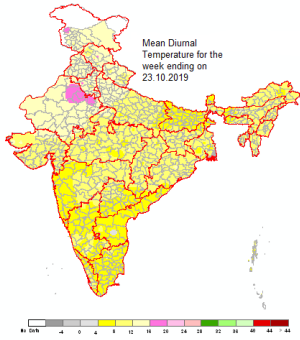
Mean Maximum Temperature (°C) for the week ending on 23.10.2019



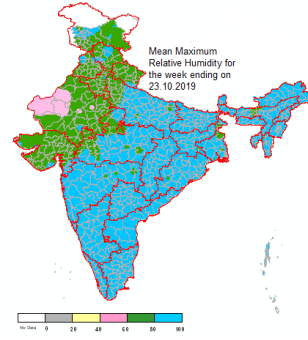
Mean Minimum Temperature (°C) for the week ending on 23.10.2019



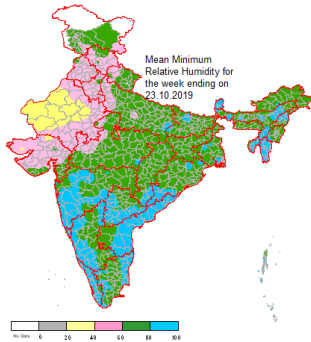
Mean Diurnal Temperature Variation (°C) for the week ending on 23.10.2019



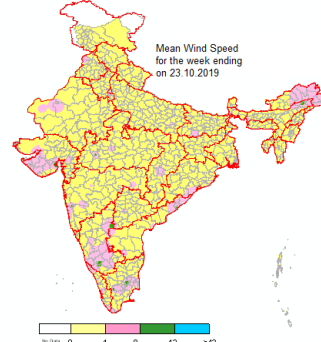
Mean Maximum Relative Humidity (%) for the week ending on 23.10.2019



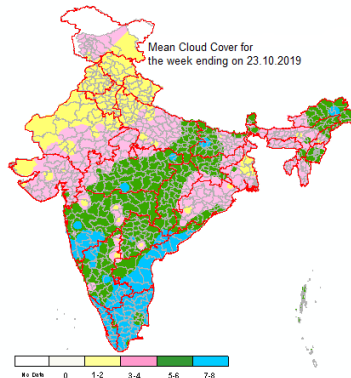
Mean Minimum Relative Humidity (%) for the week ending on 23.10.2019



Mean Wind Speed (km/hr) for the week ending on 23.10.2019

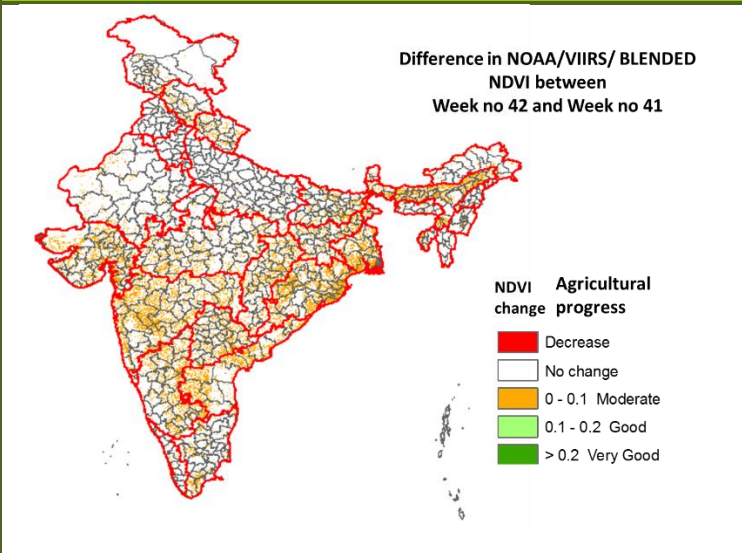
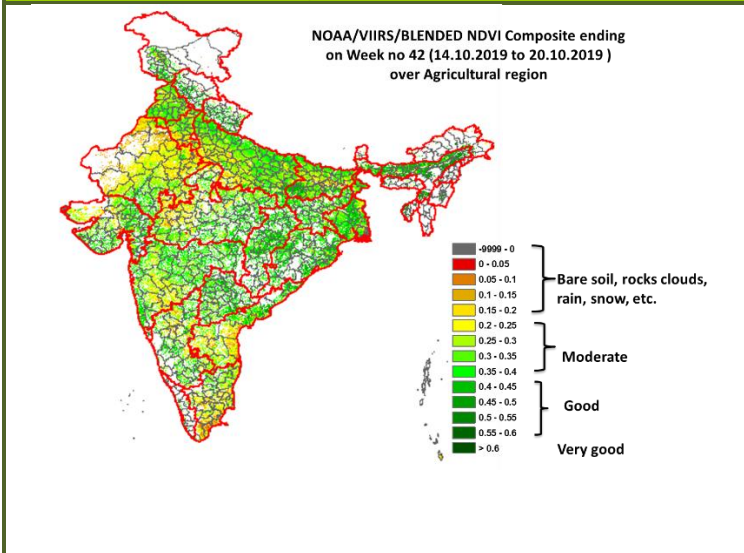


Mean Cloud Cover (okta) for the week ending on 23.10.2019



NOAA/VIIRS/BLENDED NDVI composite for the week number 42 (14.10.2019 to 20.10.2019) over Agricultural regions of India

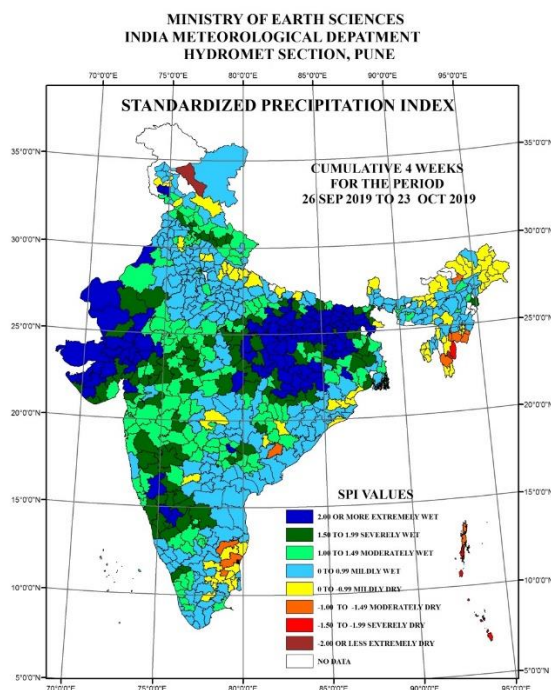
Difference in NOAA/VIIRS/BLENDED NDVI between week number 42 and week number 41



Agriculture vigour was good at most parts of North Eastern states; many parts of Himachal Pradesh, Uttarakhand, North Chhattisgarh, Southern part of Bihar adjoining Uttar Pradesh; at a few places over Uttar Pradesh, Sub Himalayan West Bengal, North Coastal Andhra Pradesh, Telangana and Odisha. It was isolated over rest of the country.

Good Agricultural vigour has been observed at isolated places over West Bengal , North Eastern states and Odisha; moderate at many places over Maharashtra, Gujarat, Telangana and Northern Karnataka.

Standardised Precipitation Index Cumulative 4 weeks for the period 26th Sep to 23rd Oct 2019



- Extremely/Severely wet conditions exist in Anantapur district of Andhra Pradesh; Araria, Aurangabad, Banka, Begusarai, Bhabua, Bhagalpur, Bhojpur, Buxar, East Champaran, Darbhanga, Gaya, Gopalganj, Jahanabad, Jamui, Katihar, Khagaria, Lakhisarai, Madhepura, Madhubani, Monghyr, Muzaffarpur, Nalanda, Nawada, Patna, Purnea, Rohtas, Saharsa, Samastipur, Saran, Sheikhpura, Siwan, Supaul, Vaishali, Arwal districts of Bihar; Ahmedabad, Banaskantha, Baroda, Broach, Dangs, Kheda, Mehsana, Sabarkantha, Surat, Gandhinagar, Anand, Patan, Aravalli, Chhota Udepur, Mahisagar, Amreli, Jamnagar, Junagarh, Kutch, Rajkot, Surendranagar, Porbandar, Botad, Devbhumi Dwarka, Gir Somnath, Morbi districts of Gujarat; Panchkula district of Haryana; Bilaspur, Sirmour districts of Himachal Pradesh; Reasi, Rajouri districts of Jammu; Uttar Kannada, Udupi, Bagalkote, Belgam, Dharwad, Gadag, Haveri, Koppal, Bellary, Chikmagalur, Chitradurga, Davangere, Shimoga districts of Karnataka; Malappuram district of Kerala; Dhar, Indore, Jhabua, Khandwa, Rajgarh, Ratlam, Sehore, Shajapur, Ashoknagar, Alirajpur, Balaghat, Chhatarpur, Chindwara, Damoh, Dindori, Jabalpur, Katni, Mandla, Panna, Rewa, Satna, Seoni, Shahdol, Sidhi, Tikamgarh, Umaria, Anuppur, Singrauli districts of West Madhya Pradesh; Dhule, Pune, Sangli, Satara, Sholapur, Osmanabad, Jalna districts of Maharashtra; Tuensang district of Nagaland; Bargarh, Jharsuguda, Sambalpur, Sundargarh districts of Orissa; Hoshiarpur, Ropar districts of Punjab; Barmer, Sri Ganganagar, Jaisalmer, Jalore, Jodhpur, Nagaur, Pali, Banswara, Dungarpur, Jhalawar, Sirohi, Udaipur, Pratapgarh districts of Rajasthan; Nilgiri district of Tamilnadu; Chandigarh district of Union Territory; Allahabad, Ambedkar Nagar, Azamgarh, Ballia, Banda, Basti, Chandauli, Fatehpur, Ghazipur, Gorakhpur, Jaunpur, Kaushambi, Mau, Mirzapur, Pratapgarh, Sant Kabir Nagar, Sultanpur, Sonbhadra, Varanasi, Sahuji Maharaj Nagar, Sant Ravidas Nagar, Amethi, Hamirpur districts of Uttar Pradesh; Malda, North Dinajpur, Bankura, Birbhum, Burdwan, East Midnapore districts of West Bengal; Bokaro, Chatra, Deoghar, Dhanbad, Giridih, Godda, Gumla, Hazaribag, Koderma, Palamu, Ranchi, East Singhbhum, Jamtara, Simdega, Ramgarh districts of Jharkhand; Dehradun, Garhwal Tehri, Rudraprayag districts of Uttarakhand; Bilaspur, Janjgir, Jashpur, Korba, Koriya, Mahasamund, Raigarh, Raipur, Surguja, Narayanpur, Baloda Bazaar, Balrampur, Bemetara, Surajpur districts of Chhattisgarh; Hyderabad, Karimnagar, Warangal, Jangaon, J.Bhupalpally districts of Telangana.
- Extremely to severely dry conditions exists in Kargil district of Jammu; Champhai, Serchhip districts of Mizoram; South Andaman, Nicobar districts of Andaman & Nicobar Islands.
- Moderately wet to moderately dry conditions were experienced in remaining districts in the country.

Significant Weather Feature

The Cyclonic Storm "KYARR" (**Pronounced as Kyarr**) over eastcentral Arabian Sea moved north-northeastwards with a speed of 07 kmph during the past 06 hours, and lay centered at 0830 hrs IST of today, the 25th October 2019 near Lat 16.0°N and Long 71.6°E, over eastcentral Arabian Sea, about 210 km west-southwest of Ratnagiri (Maharashtra), 370 km south-southwest of Mumbai (Maharashtra) and 1870 km east-southeast of Salalah (Oman). It is very likely to move nearly northwards during next 12 hours and then move west- northwestwards towards Oman coast during subsequent 5 days. It is very likely to intensify into a Severe Cyclonic Storm during next 12 hours and into a Very Severe Cyclonic Storm during subsequent 24 hours.

Weather Forecast for next 5 days valid upto 0830 hours of 30th October 2019

- ◆ Meteorological sub-division wise detailed 5 days rainfall forecast is given in Table-below.
- ◆ No significant change in minimum temperatures likely over northwest India during next 24 hours and fall by 2-3°C thereafter.

5 Day Rainfall Forecast (MID-DAY) 25th October 2019

Met-Sub-Division	25-Oct Today	26Oct Sat	27Oct Sun	28Oct Mon	29Oct Tue
1. Andaman & Nicobar Islands	SCT	SCT	SCT	FWS	SCT
2. Arunachal Pradesh	WS	WS	SCT	ISOL	ISOL
3. Assam & Meghalaya	WS	WS	SCT	ISOL	ISOL
4. N. M. M. & T.	WS	FWS	FWS	ISOL	ISOL
5. S.H. West Bengal & Sikkim	WS	ISOL	ISOL	DRY	DRY
6. Gangetic West Bengal	WS	SCT	ISOL	DRY	DRY
7. Odisha	FWS	SCT	SCT	ISOL	ISOL
8. Jharkhand	WS	ISOL	ISOL	ISOL	ISOL
9. Bihar	SCT	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
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. Jammu & Kashmir	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	ISOL	ISOL	DRY	DRY
20. East Madhya Pradesh	ISOL	ISOL	DRY	DRY	DRY
21. Gujarat Region	ISOL	ISOL	ISOL	ISOL	ISOL
22. Saurashtra & Kutch	DRY	ISOL	ISOL	ISOL	ISOL
23. Konkan & Goa	WS	FWS	SCT	SCT	ISOL
24. Madhya Maharashtra	FWS	FWS	SCT	SCT	ISOL
25. Marathwada	FWS	SCT	SCT	ISOL	ISOL
26. Vidharbha	SCT	SCT	ISOL	DRY	DRY
27. Chhattisgarh	FWS	SCT	ISOL	ISOL	DRY
28. Coastal A. P. & Yanam	FWS	SCT	SCT	SCT	SCT
29. Telangana	FWS	FWS	SCT	SCT	SCT
30. Rayalaseema	SCT	SCT	SCT	ISOL	ISOL
31. T.N.,Puducherry & Karaikal	ISOL	SCT	SCT	FWS	FWS
32. Coastal Karnataka	WS	FWS	SCT	SCT	SCT
33. North Interior Karnataka	FWS	FWS	SCT	SCT	SCT
34. South Interior Karnataka	WS	FWS	SCT	SCT	SCT
35. Kerala & Mahe	WS	FWS	FWS	WS	WS
36. Lakshadweep	WS	WS	SCT	FWS	WS

% Station Reporting Rainfall

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

Weather Warning during next 5 days

25 October (Day 1):

- ◆ **Heavy to very heavy rainfall** at isolated places over Gangetic West Bengal, Odisha, Assam & Meghalaya, Konkan & Goa and Coastal Karnataka and **Heavy Rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, North Interior Karnataka and Kerala & Mahe.
- ◆ **Thunderstorm accompanied with lightning** at isolated places over Vidarbha, Chhattisgarh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Maharashtra, Marathawada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalseema, Interior Karnataka and Kerala & Mahe.
- ◆ **Gale wind**, speed reaching 65-75 kmph gusting to 85 kmph very likely to prevail over eastcentral Arabian Sea. **Squally** wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail along & off Ratnagiri, Sindhudurg and Raigad districts of Maharashtra and Goa and 40-50 kmph gusting to 60 kmph, along & off remaining coastal districts of Maharashtra, north Karnataka coast and Lakshadweep and northeast Arabian Sea off Gujarat coast.
- ◆ **Sea condition** is very likely to be **high to very high** over eastcentral Arabian Sea; **very rough to high** along & off Maharashtra & Goa coasts and **rough to very rough** along & off north Karnataka coast and over northeast Arabian Sea off south Gujarat coast. Fishermen are advised not to venture into Maharashtra-Goa-Karnataka coasts and northeast Arabian Sea & adjoining south Gujarat coast.

26 October (Day 2):

- ◆ **Heavy Rainfall** at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Telangana, Coastal Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.
- ◆ **Thunderstorm accompanied with lightning** at isolated places Vidarbha, Chhattisgarh, Odisha, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalseema, Interior Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.
- ◆ **Gale wind**, speed reaching 90-100 kmph gusting to 110 kmph, very likely to prevail over eastcentral & adjoining westcentral Arabian Sea.
- ◆ **Sea condition** is very likely to become **phenomenal** over eastcentral Arabian Sea. Fishermen are advised not to venture into these areas.

27 October (Day 3):

- ◆ **Heavy rainfall** likely at isolated places over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.
- ◆ **Thunderstorm accompanied with lightning** at isolated places Odisha, Coastal Andhra Pradesh & Yanam, Telangana, South Interior Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.
- ◆ **Gale winds**, speed reaching 170-180 kmph gusting to 200 kmph, very likely over eastcentral & adjoining westcentral Arabian Sea.
- ◆ **Sea condition** is very likely to become **phenomenal** over eastcentral Arabian Sea. Fishermen are advised not to venture into these areas.

28 October (Day 4):

- ◆ **Heavy rainfall** likely at isolated places over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.
- ◆ **Sea condition** is very likely to become **phenomenal** over westcentral Arabian Sea. Fishermen are advised not to venture into these areas.

29 October (Day 5):

- ◆ **Heavy rainfall** likely at isolated places over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.
- ◆ **Sea condition** is very likely to become **phenomenal** over westcentral Arabian Sea. Fishermen are advised not to venture into these areas.

Weather Outlook for subsequent 2 days from 23rd to 25th October 2019

- ◆ Fairly widespread rainfall with isolated heavy falls likely over Tamilnadu, Kerala & Mahe and Coastal Karnataka on day 6 (30th October) and decreasing over the region on day 7 (31st October). Isolated to Scattered light to moderate rainfall likely over rest of the peninsular India.
- ◆ Mainly Dry weather is likely to prevail over rest of the country.

Salient advisories

- The Cyclonic Storm "KYARR" (**Pronounced as Kyarr**) over eastcentral Arabian Sea moved north-northeastwards with a speed of 07 kmph during the past 06 hours, and lay centered at 0830 hrs IST of today, the 25th October 2019 near Lat 16.0°N and Long 71.6°E, over eastcentral Arabian Sea, about 210 km west-southwest of Ratnagiri (Maharashtra), 370 km south-southwest of Mumbai (Maharashtra) and 1870 km east-southeast of Salalah (Oman). It is very likely to move nearly northwards during next 12 hours and then move west- northwestwards towards Oman coast during subsequent 5 days. It is very likely to intensify into a Severe Cyclonic Storm during next 12 hours and into a Very Severe Cyclonic Storm during subsequent 24 hours.
- **Gale wind**, speed reaching 65-75 kmph gusting to 85 kmph very likely to prevail over eastcentral Arabian Sea. **Squally** wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail along & off Ratnagiri, Sindhudurg and Raigad districts of Maharashtra and Goa and 40-50 kmph gusting to 60 kmph, along & off remaining coastal districts of Maharashtra, north Karnataka coast and Lakshadweep and northeast Arabian Sea off Gujarat coast on 25th, **Gale wind**, speed reaching 90-100 kmph gusting to 110 kmph, very likely to prevail over eastcentral & adjoining westcentral Arabian Sea on 26th October., provide mechanical support to young fruit plants, banana and staking of vegetables to prevent the crops from lodging due to strong winds. Undertake propping up in sugarcane.
- As **rain/thundershowers likely at most/many places** over Kerala during the period, over Karnataka on 25th & 26th, over Tamilnadu on 28th & 29th and over Telangana on 25th & 26th, over Konkan & Goa and Madhya Maharashtra on 25th & 26th, over Arunachal Pradesh, Assam & Meghalaya on 25th & 26th, over Nagaland, Manipur, Mizoram and Tripura from 25th to 27th October along with **Heavy Rainfall** at isolated places over Telangana and Coastal Karnataka on 26th, over Tamilnadu, Puducherry & Karaikal and Kerala from 26th to 29th, over Arunachal Pradesh, Assam, Meghalaya Nagaland, Manipur, Mizoram and Tripura on 25th & 26th October, **Heavy to very heavy rainfall** very likely at isolated places over Konkan & Goa and **Heavy Rainfall** at isolated places over Madhya Maharashtra on 25th October, avoid irrigation, intercultural operation, 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 safer places.
- **Thunderstorm accompanied with lightning** very likely at isolated places over Vidarbha, Madhya Maharashtra, Marathwada on 26th, over Chhattisgarh on 25th & 26th, over Rayalaseema and Interior Karnataka on 26th, over Coastal Andhra Pradesh, Telangana, Tamilnadu & puducherry and Kerala on 26th & 27th, over South Interior Karnataka on 27th, over Odisha on 26th & 27th October, provide mechanical support

to young fruit plants, banana and staking of vegetables to prevent the crops from lodging due to strong winds. Undertake propping up in sugarcane.

- Undertake sowing/ transplanting of following *rabi* crops:
 - Continue sowing of rapeseed/mustard in **Assam**.
 - In Southern Telangana zone, continue sowing of rabi redgram, groundnut and castor.
 - In North Interior Karnataka, continue sowing of sunflower, sorghum, chickpea, niger and safflower
 - In North Gujarat, continue sowing of *Rabi* crops viz. mustard, gram and fennel
 - In **Madhya Maharashtra**, continue land preparation for sowing of rabi jowar, safflower and rainfed gram in fallow lands after current spells of rain. In **Vidarbha**, continue land preparation of *rabi* crops like safflower, jowar, linseed and gram in fallow lands.
 - In **West Uttar Pradesh**, continue sowing of sarson/ rai, gram, lentil, peas, carrot, planting of potato.
 - In Sub Humid Southern Plain and Aravali Hill Zone of **Rajasthan**, continue sowing of mustard, gram, pea and garlic.
 - Continue sowing of mustard in **Uttarakhand** and **Jammu & Kashmir**.
- As mainly dry/ dry weather would prevail, complete harvesting of matured soybean in **Madhya Pradesh**. Continue harvesting of mature paddy and maize crops in Bihar. In **Chhattisgarh**, undertake harvesting of matured mung, urd, maize, groundnut and finger millet in clear weather. In **Arunachal Pradesh**, complete harvesting of *Jhum* rice and soybean. In **South Interior Karnataka**, continue harvesting of groundnut. Harvest matured rice, maize, green gram, black gram and groundnut in **Odisha**.

Detailed Agromet Advisories

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

Realised Rainfall: Significant rainfall occurred in all the districts of Coastal Andhra Pradesh & Yanam and Rayalseem; most districts of Telangana except Hyderabad, Jogulamba Gadwal, Mahabubnagar, Nagarkurnool, Rangareddy, Sangareddy and Vikarabad; all districts of Coastal Karnataka, in all districts of North Interior Karnataka except Raichur and Yadgir districts and in all districts of South Interior Karnataka; all the districts of Kerala; in all districts of Tamilnadu during the week.

Advisories:

- As rain/thundershowers likely at most/many places over Kerala during the period, over Karnataka on 25th & 26th, over Tamilnadu on 28th & 29th and over Telangana on 25th & 26th October along with **Heavy Rainfall** at isolated places over Telangana and Coastal Karnataka on 26th, over Tamilnadu, Puducherry & Karaikal and Kerala from 26th to 29th October, avoid irrigation, intercultural operation, 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 safer places.
- **Thunderstorm accompanied with lightning** very likely at isolated places over Rayalaseema and Interior Karnataka on 26th, over Coastal Andhra Pradesh, Telangana, Tamilnadu & puducherry and Kerala on 26th & 27th, over South Interior Karnataka on 27th October, provide mechanical support to young fruit plants, banana and staking of vegetables to prevent the crops from lodging due to strong winds. Undertake propping up in sugarcane.

Kerala

- In Problem Area Zone and Central Zone, continue transplanting of *Mundakan* rice.
- In Northern Zone, weather is congenial for pollu beetle in black pepper, apply combination of Hexaconazole and Deltamethrin (@ Hexaconazole 1ml + Deltamethrin 0.5ml per litre of water) after current spells of rain.
- In Southern Zone, weather is congenial for Leaf eating caterpillar in banana, apply Quinalphos 25 EC @ 1.5ml/litre of water on the leaf axils after current spells of rain.

Andhra Pradesh

- In Southern Zone of Andhra Pradesh, continue harvesting of matured groundnut in clear weather. Weather is congenial for falls army worm in maize, spray Emamectin benzoate @ 5 SB @ 0.4 ml./L of water (or) Chlorantrilipole @ 0.4 ml./L of water by spraying directed on whorls. For late instars apply bait in the whorls during evening time (Bait: Mix rice bran @ 10 kg + 2 g jaggery in 2 L of water keep it for fermentation for 24 hr. and mix Thiodicarb @ 100 g.
- In North Coastal Andhra Pradesh, continue harvesting of maize. Present prevailing weather conditions are favourable for sheath blight and leaf blast diseases in rice. Spray Tricyclozole + Hexaconazole (Impression) @ 1 g per litre of water after current spells of rain.
- In Scarce rainfall Zone of Rayalaseema, continue sowing of Bengal gram in black soils and horsegram in red soils at optimum soil moisture conditions. Weather is congenial for helicoverpa and spodoptera in groundnut, spray Thiodicarb 200 g (or) Novaluron 200 ml (or) Rinoxypyr 50 ml (or) flubezemidazole 40 ml per litre of water after current spells of rain.

Telangana

- In Southern Telangana zone, continue sowing of Bengal gram, safflower, groundnut, mustard & castor.
- In Northern Telangana, continue sowing of Bengal gram, safflower, groundnut, mustard & castor under assured irrigation. Also weather is congenial for stem fly and stem girdler in soybean, spray Dimethoate @ 2 ml or Chlorantrilipole @ 0.3 ml per litre of water after current spells of rain.

Tamil Nadu

- In Western Zone, sowing of pulses and other dry land crops can be taken up in fallow lands.
- In High Rainfall Zone, as rainfall is expected, proper drainage facilities should be given to young rubber plantation, banana and fruit trees.
- In South Zone, weather is congenial for Fall army worm in maize, spray Azadirachtin 1% EC @ 20ml/10 lit. (or) Emamectin Benzoate 5 SG @ 4g/10 litre of water after current spells of rain.
- In High Altitude Hilly Zone, boron deficiency in vegetable crops, apply 1 kg of borax per acre as soil application during the field preparation as basal dose.

Karnataka

- As **Squally** wind, speed reaching 55-65 kmph gusting to 75 kmph, very likely to prevail along & off north Karnataka coast on 25th October, provide mechanical support to young fruit plants, banana and staking of vegetables to prevent the crops from lodging due to strong winds.
- In South Interior Karnataka, complete sowing of ragi, maize and cowpea crops. Undertake harvesting of arecanut and groundnut.
- In North Interior Karnataka, continue sowing of chickpea, sorghum, sunflower, safflower, wheat (irrigated crops). Continue new planting of sugarcane. Drain out excess water from the cotton and groundnut crop fields.
- In Coastal Karnataka, for control of fruit rot in cocoa, remove the rotted fruits and spray 1% Bordeaux mixture after current spells of rain.
- In South Interior Karnataka, sheath rot disease is noticed in rice crop; spray Bavistin @ 1.0 g per liter of water after current spells of rain.

Animal Husbandry:

- In Kerala, animal should not be allowed to graze in open grazing lands to avoid lightning risk.
- In Tamilnadu, vaccinate livestock against FMD by taking their livestock to the nearby veterinary

dispensary.

- In Karaikal and Pondicherry, during the onset of monsoon, animals may be vaccinated for Foot and Mouth Diseases and Haemorrhagic Septicemia. Openly grazed animals that are drinking pond water should be dewormed.
- In Karnataka, maintain the optimum room temperature in Sericulture, Poultry and Dairy unit by providing electric bulb for creating warm room temperature.

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

Realised Rainfall : Rainfall occurred in Dibang Valley, East Siang, Lower Dibang Valley, Papumpare, Upper Siang and West Kameng districts of Arunachal Pradesh and Jorhat district of Assam; Jaintia Hills district of Meghalaya and Mon, Wokha and Zunheboto districts of Nagaland.

Advisories:

- As rain/thundershowers likely at most/many places over Arunachal Pradesh, Assam, Meghalaya on 25th & 26th, over Nagaland, Manipur, Mizoram and Tripura from 25th to 27th October along with **Heavy Rainfall** at isolated places on 25th & 26th October, avoid irrigation, intercultural operation, 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 safer places.

Arunachal Pradesh

- In Arunachal Pradesh, complete harvesting of *Jhum* rice and soybean in clear weather. Continue transplanting of cole crops. Undertake sowing of mustard.

Assam & Meghalaya

- In Lower Brahmaputra Valley Zone, continue sowing of rapeseed/mustard and transplanting of cole crops. Complete planting of potato at the earliest. Apply Malathion 5% dust @ 3Kg per bigha against rice bug at milking to dough stage of Sali rice.
- In Central Brahmaputra Valley, undertake land preparation for sowing of wheat, continue sowing of *rabi* maize and cole crops. Continue land preparation and sowing of rapeseed-mustard and *rabi* pulses and oilseeds. Gundhi bug infestation is observed in panicle emergence stage to milk dough stage which may be controlled by applying Malathion 5% dust @ 20 kg/ha based on ETL in Sali rice. Holding fires around the field in the night hours also reduce Gundhi bug population. Farmers are advised to adopt relay cropping with pea in the rice field 20-25 days before harvesting *Sali* rice, suitable varieties of pea such as T-136, bonneville etc.
- In Upper Brahmaputra Valley Zone, undertake sowing for toria and transplanting of cole crops. Continue planting of potato. Apply Malathion 5% dust @ 3 Kg per bigha to control gundhi bug infestation in *Sali* rice after current spells of rain.
- In Barak Valley Zone of Assam, continue planting of potato and sowing of rapeseed and mustard and nursery sowing of brinjal, mid cauliflower and cabbage. To control rice bug infestation in Sali rice, farmers are advised to apply Malathion 5% dust @20 kg/ha. In case of appearance of blast and sheath blight diseases above ETL, apply Carbendazim @ 1g/litre of water and subsequently two more sprays of Ediphenphos @ 1 ml/lit of water at an interval of about 15 days against blast disease and for sheath blight, spray Mancozeb (2.5g/litre) or hexaconazole 5EC (2 ml/litre) after current spells of rain.
- In North Bank Plain Zone of Assam, continue land preparation/ sowing of rapeseed-mustard and cole crops and planting of potato. At milky and dough stage of Sali paddy, farmers may take plant protection measure against Gundhi bug based on ETL in *Sali* paddy. Apply Monocrotophos @3ml/ litre to control rice bug infestation in Sali rice after current spells of rain.
- In Hill Zone of Assam, continue harvesting of Sali rice. Areas where paddy crop is about to mature, irrigation should be stopped two weeks before harvesting. After harvesting crop should be dried in the field for 2-3 days and thereafter threshing should be done. Grains should be properly dried to right moisture level before storing.

- In Meghalaya, continue nursery raising/ transplanting for cole crops (cabbage, cauliflower, broccoli). Prepare uplands for early *rabi* crops. Maintain proper drainage in the field crops/vegetables/fruit crops. Spray Tricy-Biofungicide, *Pseudomonas fluorescens* @ 4g/10 litre against blast in rice. Maintain proper water level up to 5 cm in the rice fields.

Manipur, Mizoram, Tripura and Nagaland

- In Nagaland, complete harvesting of groundnut and undertake harvesting of soybean in clear weather. Continue land preparation/ sowing of rabi crops, toria, maize and nursery sowing/transplanting of vegetables like cabbage, cauliflower, knolkhol, broccoli, radish, tomato. Undertake harvesting of ginger/turmeric. To control the attack of sucking pest in the vegetable crops farmer are advised to spray neem seed kernal extract 5 percent.
- In Manipur, undertake harvesting of matured *kharif* rice, soybean, ground nut and rice bean and land preparation/sowing of rapeseed and field pea. Continue planting of potato, nursery sowing of cole crops, onion and sowing of Broad bean/ pea/French bean.
- In Mizoram, continue harvesting of mature panicles of *Jhum* rice. Continue nursery raising of brinjal, chilli and early crucifer crops. Continue sowing of soybean along with standing maize crop during clear/dry days. There is chance of rhizome rot in ginger and turmeric. To manage the disease, provide adequate drainage and apply *Trichoderma harzianum* @ 50 g/bed along with FYM/ neem cake or apply Ridomil @ 2 g/litre of water. Before transplanting of broccoli and cabbage the seedlings, go for root dip in Bavistin solution @ 1 grams per litre of water for ½ hour to check damping off disease.
- In Tripura, continue transplanting of cole crops. Continue planting of potato and sowing of sesame. Undertake harvesting of *Aman* rice in clear weather.

Animal Husbandry

- In Assam, to protect poultry from cold, put gunny bags or plastic sheath curtains on the side walls of shed and bedding material should be increased by six inches. Care should be taken not to restrict ventilation. Care should be taken not to restrict ventilation.
- In Arunachal Pradesh, vaccination against poultry against Ranikhet and infectious bronchitis.
- In Upper Brahmaputra Valley Zone of Assam, undertake vaccination (RDF1) of the one week old chicks against Ranikhet disease and against Gamboro disease in two weeks old chicks after consultation with local veterinarian.

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

Realised Rainfall: Rainfall occurred in all districts of Andaman & Nicobar Islands; In Jahanabad district of Bihar; in Dhanbad, East Singbhum, Ramgarh, Ranchi, Simdega and West Singbhum districts of Jharkhand; in Gajapati, Ganjam., Jharsuguda, Khurda, Koraput, Mayurbhanj and Sundargarh districts of Odisha and in Bankura and Burdwan districts of Gangetic West Bengal. Weather remained dry/mainly dry over the rest of the region.

Advisories:

- **Thunderstorm accompanied with lightning** very likely at isolated places over Odisha on 26th & 27th, October, provide mechanical support to young fruit plants, banana and staking of vegetables, to prevent the crops from lodging due to strong winds. Undertake propping up in sugarcane in Odisha. Keep harvested produce at safer places.

Odisha

- Harvest the matured rice maize, green gram, black gram and Kharif groundnut in clear weather and keep in safe place. Drain out excess water from vegetable nursery. Harvest vegetables to avoid rotting due to rain.
- Take up sowing of rabi crops such as groundnut, maize, green pea, toria; sowing of vegetables like cole crops (cabbage, late cauliflower and broccoli), solanaceous vegetables (brinjal, tomato, chilli and

capsicum) and planting of vegetables like carrot, radish, late onion, garlic, legumes, etc.

- To control pumpkin beetle, destroy the old and infested plants and apply Carbaryl (0.4kg/acre) or Malathion (2kg/acre) on a non rainy day.

Bihar

- Continue harvesting of mature paddy and kharif maize crops. Complete the threshing of harvested paddy crop during next 1-2 days. Continue transplanting of tomato seedlings. Carry out land preparation for timely sowing of Rabi crops like lentil, sunflower, yellow mustard, rai, rapeseed, coriander, garlic, sunflower, rajmaa, gram, pea and methi. Take up sowing of Rabi maize.
- Apply Quinalphos 1.5 % or Methyl Parathion 2% or Folidol dust @ 25 kg per hectare to protect paddy crop at milking stage from gundhi bug.

Jharkhand

- Continue nursery raising of onion. For one acre of planting area, take 4 kg seeds and sow them on 200 x 200 meter nursery bed after seed treatment with Thiram. Prepare field for cultivation of mustard, wheat, lentil, table pea, field pea, potato, linseed and barley crops. As heavy rain is forecast on 25th & 26th October, postpone the harvesting of kharif crops and keep the already harvested crops at safer place.
- If attack of gundhi bug is seen in rice field at milking to dough stage, spray Methyl Parathion 2 % or Chlorpyrifos 4 % or Imidachlorpid dust @ 8-10 kg per acre in the morning or evening (before sunset). In case of false smut in paddy at flowering to milking stage, spray Propiconazole or Tilt @ 1 ml per liter or Tabuconazole or Trifloxystrobin or Chlorothalonil @ 1g per 2 litre of water on a non rainy day.

West Bengal

- In Sub-Himalayan West Bengal, maintain optimum water level in paddy crop. Prepare field for sowing of Rabi season garden pea and cole crops like cabbage, cauliflower, etc. Take up sowing of spinach after seed treatment with Bavistin or Mancozeb @ 2gram/kg of seeds.
- In Gangetic West Bengal, keep proper drainage arrangements in vegetables field and betel vine garden. Prepare main field for transplanting seedlings of chilli, tomato and brinjal. Apply compost during field preparation and provide staking to the young plants.
- In Aman paddy, spray Acephate@1g/liter of water for BPH and Quinalphos dust or Chlorpyrifos dust@3.3kg/bigha for gundhi bug. Spray Spinosad @1.5ml/litre of water or FEM @ 4ml/10 litres for pod borer in black gram.

Andaman & Nicobar Islands

- In Andaman & Nicobar Islands, apply 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. Do weeding and maintain 5 cm water level in rice field. Prepare raised nursery bed in well drained areas and sow the seeds of brinjal (400 to 500 g) for transplanting in one hectare area. Do weeding and earthing up in okra and apply compost @ 2-3 kg per plant.

Animal Husbandry

- In Bihar, vaccinate animals against FMD. Keep the animal shed clean using disinfectants.
- In Jharkhand, de-worm domestic animals under the care of veterinarian. Vaccinate poultry birds against Ranikhet disease. Keep animal sheds and poultry cages clean.
- In Odisha, administer vaccination to farm animals and poultry birds at regular interval.
- In West Bengal, restrict the time animals spend grazing in green pastures. Mix essential salts in their feed.
- In Andaman & Nicobar Islands, clean the nose of the goat kid immediately after the birth to prevent suffocation.

Fishery

- In West Bengal, apply lime in pond water. Remove all aquatic weeds from bottom of pond. Cut the surrounding bushes for better sunlight.
- In Andaman & Nicobar Islands, feed stocked fingerlings @ 5 % of body weight for better growth.

Realised Rainfall: Rainfall occurred in all districts in Konkan & Goa; all districts in Madhya Maharashtra except Nandurbar; all districts in Marathwada except Hingoli; Buldhana, Chandrapur, Gadchiroli districts of Vidarbha and Dangs district of Gujarat.

Advisories:

- Thunderstorm **accompanied** with **lightning** very likely at isolated places over Vidarbha, Madhya Maharashtra, Marathwada on 26th October, provide mechanical support to young fruit plants, banana and staking of vegetables to prevent the crops from lodging due to strong winds. Undertake propping up in sugarcane.
- As rain/thundershowers likely at most/many places over Konkan & Goa and Madhya Maharashtra on 25th & 26th October along with **Heavy to very heavy rainfall** very likely at isolated places over Konkan & Goa, **Heavy Rainfall** at isolated places over Madhya Maharashtra on 25th October, avoid irrigation, intercultural operation, 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 safer places.

Maharashtra

- In Konkan, undertake sowing of horse gram, cowpea and *wal* in fallow lands and lablab bean in harvested fields of *kharif* rice after current spell of heavy rain. Continue harvesting of matured varieties of rice during clear weather. Keep the harvested produce in safer place. To control hoppers, leaf eating caterpillars, shoot borer and midge fly in new flush of mangoes, spray Dimethoate 25 EC @ 12 ml or Monocrotophos 36 WSC @ 11 ml per 10 litres of water after current spells of rain. In view of high wind speed during next two days, provide mechanical support to newly planted coconut saplings and mango grafts
- In Madhya Maharashtra, drain out excess water from orchards, standing crop and vegetable fields. Continue harvesting of matured and early varieties of rice, soybean and groundnut during clear weather. Keep harvested produce in safer place. Continue land preparation for *rabi* crops like wheat, jowar, gram and safflower in fallow lands after current spell of heavy rain. To control thrips and sucking pest in cotton, spray Fipronil 80WG @ 2g with 15 liters of water and spray 5% neemark to white fly after current spells of rain. To control bacterial leaf blight in rice, spray Copper oxychloride (COC) @ 30 g + Streptocycline @ 3 g per 10 litres of water with sticker after current spell of rain. In view of high wind speed during next 2 days, provide mechanical support to newly planted mango grafts.
- In Marathwada, drain out excess water from orchards, standing crop and vegetable fields. Continue harvesting of matured soybean during clear weather. Keep harvested produce in safer place. Continue sowing of *rabi* jowar, safflower and gram in fallow lands after current spells of heavy rain (at *vapsa* condition).
- In Vidarbha, undertake picking of early sown cotton and harvesting of soybean and matured varieties of rice during clear weather. Keep the harvested produce in safer place. Continue sowing of *rabi* crops like safflower, jowar, linseed and gram in fallow lands. To control pink boll worm in cotton, spray Quinalphos 25% EC @ 25 ml per 10 liters of water on a non rainy day.

Gujarat

- In North Gujarat, complete land preparation and undertake sowing of mustard, gram, fennel and carrot crops.
- In Saurashtra & Kutch, undertake sowing of chickpea mustard, garlic and sorghum where irrigation facility is available.
- In South Gujarat, undertake sowing of sweet corn crop. Undertake nursery preparation for chilli and brinjal. Complete harvesting of pulse crops. Drain out water from rice (maturity stage) field.
- In Middle Gujarat, complete harvesting of rice and pearl millet crops. Undertake land preparation for sowing of *rabi* crops.

- In North Gujarat, present high temperature and low humidity condition favours infestation of jassid and white fly in castor; to control, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g /10 liters of water.

CENTRAL INDIA [M.P., CHHATTISGARH]

Realised Rainfall: Rainfall occurred in Dindori, Mandla, Seoni districts of East Madhya Pradesh, in Betul, Burhanpur, Hoshangabad and Khandwa districts of West Madhya Pradesh and in all districts of Chhattisgarh except Bemetara, Janjgir, Kabirdham and Sukuma districts.

Advisories:

- **Thunderstorm accompanied with lightning** very likely at isolated places over Chhattisgarh on 25th & 26th October, provide mechanical support to young fruit plants, banana and staking of vegetables to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places.

Madhya Pradesh

- In Madhya Pradesh, complete harvesting of soybean crop. Collect the harvested soybean crop and store in safe place after proper drying (turning 2-3 times a day) and thereafter threshing. Undertake preparation of nursery bed for Rabi vegetable crops. Treated seeds to be sown in line i.e. Tomato, Brinjal, Chilli, Cabbage and cauliflower etc.
- In Gird Zone, continue harvesting of matured bajra, urad and moong. Undertake land preparation and sowing of mustard.
- In Nimar Valley Zone, in areas where Jassid & White fly crosses ETL in Cotton crop, apply Imidachloprid 17.8 SL @ 3 ml/10 litre or Thiamethoxam 25 WG @ 2g/ 10 litre or Acetamiprid 20 SP@ 3g/10 litres of water. Install pheromone traps @ 5/ha for monitoring Pink bollworm.

Chhattisgarh

- In Northern Hill Zone, undertake harvesting of matured mung, urd, maize, rice, groundnut, finger millet etc. Farmers are advised to plough the land immediately after harvesting of different crops and sow immediate rabi crops like toria, mustard, green pea and potato and arrange seed & fertilizer for cultivation of rainfed wheat, if having assured irrigation facility. Undertake land preparation for sowing of chickpea. Start transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal.
- In Bastar Plateau Zone, in the rice crop, for monitoring of yellow stem borer, install pheromone traps 10 nos. per acre. Undertake sowing of pea.
- Under present hot and humid weather condition blast in rice may occur. Hence farmers are advised to keep watch over the crop and if the incidence is more spraying of Tricyclazole @6 g/10 litre of water or Saaf @ 1 ml/litre of water on a non rainy day.

Animal Husbandry

- In Madhya Pradesh, cattle sheds should be kept dry. Vaccinate the cow and buffaloes for FMD disease and vaccinate goats with ETV vaccine. Vaccinate the chicks at 7 days (F1) and at 6 weeks with R2B.

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

Realised Rainfall : Significant rainfall occurred in Kupwara district of Jammu & Kashmir. Weather remained mainly dry in rest of the region.

Advisories:

Jammu & Kashmir

- In Sub Tropical Zone, undertake harvesting of semi-fine rice cultivars which have attained maturity. Stop irrigation in normal sown Baasmati rice, as the grains turn golden in colour. Do not miss irrigation in late transplanted rice crop at milking stage. Undertake sowing of mustard. Undertake sowing of pea, chickpea and lentil. Undertake sowing of winter potato.
- In Intermediate Zone, undertake land preparation after cessation of rains for sowing of wheat. Carry out weeding and hoeing operation in 3 weeks old toria crop. Undertake sowing of mustard. Undertake sowing

of early peas. Carry out earthing up in cole crops. Undertake nursery sowing of late cauliflower and onion crops.

Himachal Pradesh

- In Sub-Montane and Low Hills Sub Tropical Zone, carry out weeding and hoeing operations in vegetable crops like tomato, chilli, capsicum and brinjal. Undertake planting of onion bulbs. Undertake sowing of turnip and raddish. Undertake sowing of potato.
- In High Hill Temperate Dry Zone, carry out ploughing operations in the field after harvesting oats. To prevent aphids on apple trees, spray Malathion 200 ml/200litres of water, 20-25 days before harvesting.
- In Mid Hills Sub Humid Zone, to protect the cole crops from grass hopper; spray Melathian @15ml in 15 litres of water. To protect tomato from late blight disease; spray Redomil Gold & Saimokjnal Mancozeb (Carzate M-8) @37.5 g in 15 litres of water at in interval of 7-10 days. Continue sowing of onion and garlic.

Punjab, Haryana and New Delhi

- In Punjab, undertake sowing of carrot, broccoli, Chinese cabbage, radish, spinach and transplanting of mid-season cauliflower. Harvest matured maize crop. Complete planting of ever green fruit plants like mango, sweet orange, mandarin, lime, lemon, litchi, guava, aonla, loquat and papaya. Picking of cotton should be done in dry and sunny day only.
- In Undulating Plain Zone, due to high humid conditions, attack of brown spot may be noticed in direct seeded rice. Apply recommended fungicides for control. Harvest the mature paddy crop. Borers in sugarcane can be managed by using Tricho-cards having 20,000 eggs of *Corcyra cephalonica* parasitized (seven days old) by *Trichogramma chilonis* and *Tricogramma japonicum* per acre at 10 days interval.
- In Haryana, continue sowing of pulses i.e. green gram, lobia, moth. Undertake sowing of mustard and gram crop. Continue harvesting of matured bajra and mung, arrange to cover the harvested bajra and mung crop. Undertake seed bed preparation and sowing of seasonal vegetable crops. Complete picking in cotton crop at the earliest and undertake harvesting.
- In Delhi, undertake sowing of mustard, transplanting of onion seedling in the prepared fields and planting of early potato. Undertake transplanting of mature seedlings of cauliflower, cabbage, broccoli and tomato. In present weather conditions, rouging of viral infested crop should be done in chilli and tomato. Infected plants should be uprooted and buried in the soil. If infection is more than spray of Imidacloprid @ 0.3 ml per litre of water is advised for control the vector.

Uttar Pradesh

- In East Uttar Pradesh, stop Irrigation 7-10 days before harvesting of rice crop. Harvest rice crop if matured. Continue sowing of sarson, rai and lentil. Undertake planting of Potato at a row distance of 45-60 cm and 15-20 cm distance from tuber to tuber. Undertake sowing of **pea** varieties like Arkel, Azad P-1, Azad P-3, **Reddish** variety like Japani white, **onion** variety-Pusa red, Spinach in optimum soil moisture condition. Apply 50-60 g urea and 100-125g muriate of potash per plant of Banana and then mix them in the soil.
- In West Uttar Pradesh, undertake harvesting and threshing of mature crops like urad / moong, maize and paddy etc. Prepare your field for sowing of rabi crops like pea, mustard, chickpea and lentil etc. Undertake sowing of sarson / rai, gram, peas, carrot, potato. Continue transplanting of medium duration variety of capsicum, tomato, cabbage, Tomato, Brinjal and Chilli. Continue planting of horticultural crops viz, papaya, mango, guava etc. Undertake sowing of raddish, garlic, coriander, spinach, fenugreek etc. Undertake sowing the berseem, oat, rijaka for green fodder **use**.

Uttarakhand

- In Bhabar and Tarai Zone, undertake sowing of wheat. Complete sowing of barley. Undertake harvesting of soybean. Cover the potato crop with soil. Undertake transplanting of cabbage and cauliflower seedlings. Mulching should be done to conserve the moisture after hoeing in pea, radish, cabbage and cauliflower crops.

- In Sub-Humid Sub-Tropic Zone, maintain proper soil moisture in the long duration rice crop during grain formation period. Complete sowing of autumnal sugarcane crop. Complete sowing of mustard crop. Undertake field preparation for transplanting of tomato, brinjal, chilli and capsicum.
- In Hill Zone, continue harvesting of matured vegetable pea. Undertake field sanitization before sowing of onion nursery. Use light trap during night to protect cucurbits from pests. Continue sowing of mustard, radish, carrot, fenugreek, coriander and garlic. In red gram, spray Indoxacarb 15.8EC @ 0.5 ml/litre of water to control fruit borer insect. Continue sowing of wheat.

Rajasthan

- In Sub Humid Southern Plain and Aravali Hill Zone, continue sowing of mustard, gram, pea and garlic with residual soil moisture. Also undertake transplanting of mature seedlings of cauliflower, cabbage, broccoli and tomato may in raised bed.
- In Arid Western Plain Zone, continue sowing of mustard and gram. In Semi-Arid Eastern Plain Zone, undertake sowing of mustard, gram, spinach and pea.
- In Transitional Plain Zone of Inland Drainage, undertake sowing of mustard, Lucerne, Taramira. In Arid Western Plain Zone, undertake sowing for gram and mustard.
- In Flood Prone Eastern Plain Zone, prepare field for planting potato, spray Malathion 50 EC @ 1.0 ml/litre water to manage fruit fly in guava.

Animal Husbandry

- In East Uttar Pradesh, Balanced feed should be given for milk animal with 50% green fodder. Vaccination should be done to prevent the animals from foot mouth diseases. Vaccinate the goat to control PPR disease.
- In west Uttar Pradesh, cattle sheds should be kept dry as far as possible. Farmers are advised to provide dry fodder with green fodder in (50:50) ratio & 20-30 g mineral mixture and salt for the dairy animal's every day. Vaccinate the goat to control PPR disease. Increase light duration in poultry house.

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