



National Agromet Advisory Service Bulletin

Thursday 9th April 2020
(For the period 9th to 13th April 2020)



Issued by
India Meteorological Department

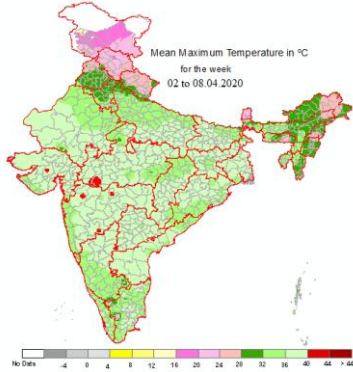
Weblink For

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

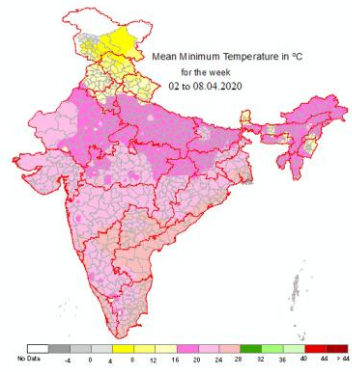
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

spatial distribution of weather parameters for the week ending on 08.04.2020

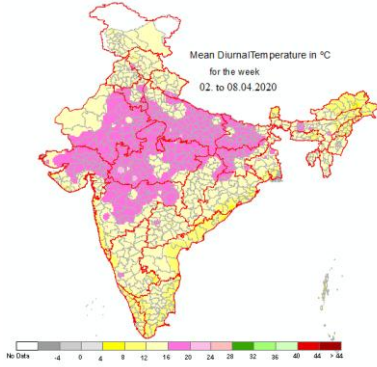
Mean Maximum Temperature (°C) for the week ending on 08.04.2020



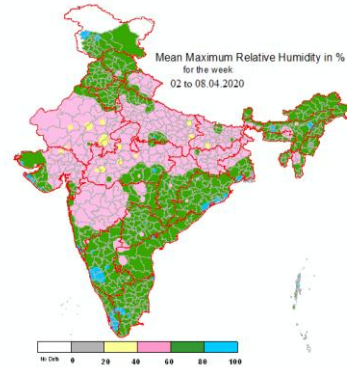
Mean Minimum Temperature (°C) for the week ending on 08.04.2020



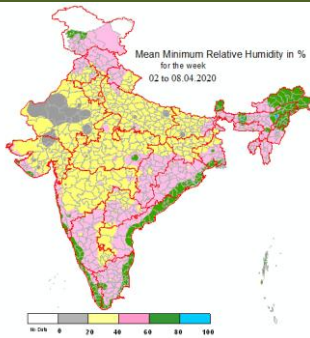
Mean Diurnal Temperature Variation (°C) for the week ending on 08.04.2020



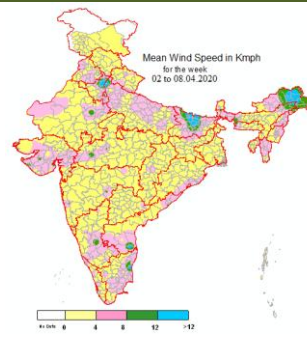
Mean Maximum Relative Humidity (%) for the week ending on 08.04.2020



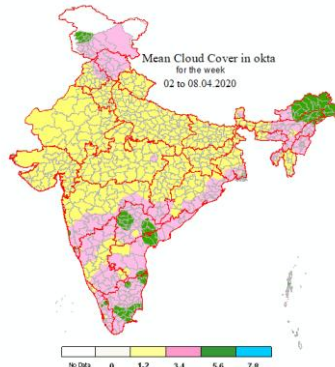
Mean Minimum Relative Humidity (%) for the week ending on 08.04.2020



Mean Wind Speed (km/hr) for the week ending on 08.04.2020

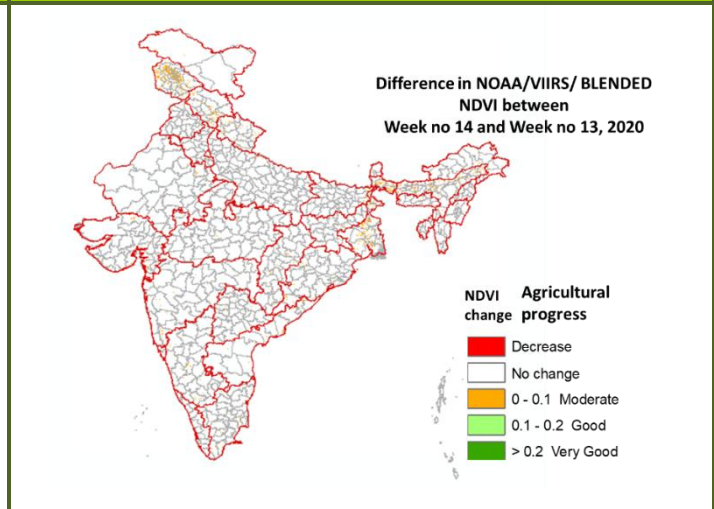
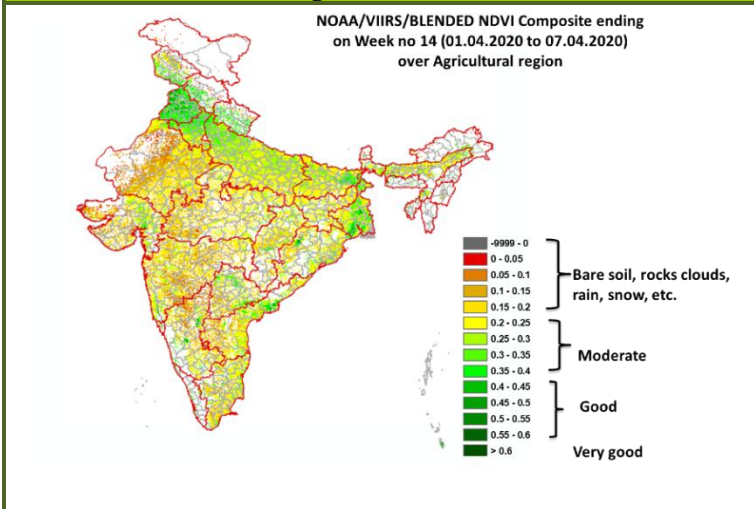


Mean Cloud Cover (okta) for the week ending on 08.04.2020



NOAA/VIIRS/BLENDED NDVI composite for the week number 14 (01.04.2020 to 07.04.2020) over Agricultural regions of India

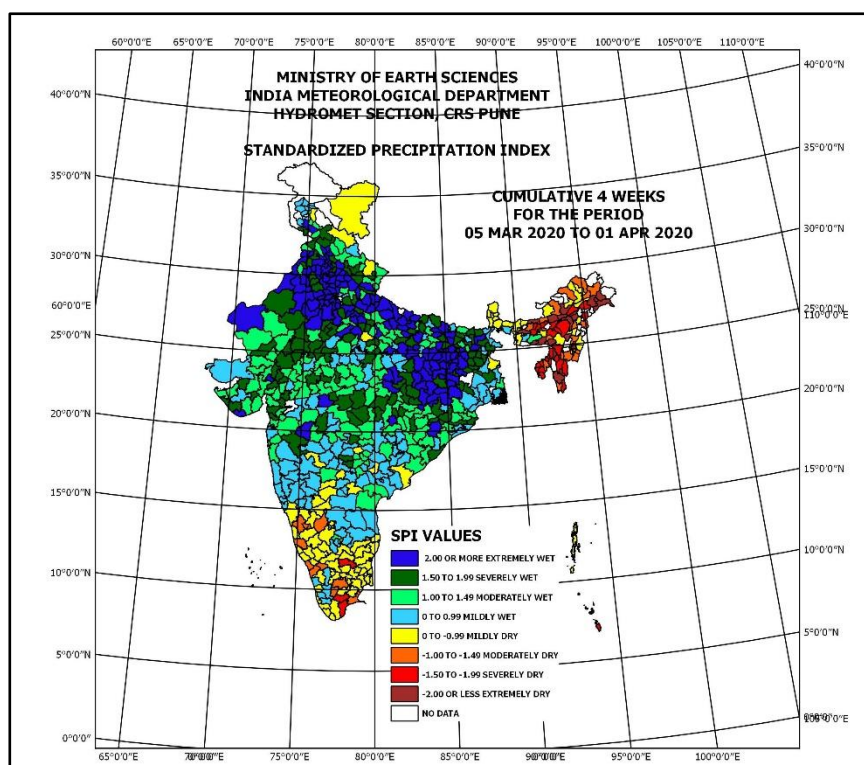
Difference in NOAA/VIIRS/BLENDED NDVI between week number 14, 2020 and week number 13, 2020



Agricultural vigour was good at few places of Punjab & Gangetic West Bengal and at isolated places of Himachal Pradesh, Uttarakhand, Bihar, Odisha, Central Part of Chhattisgarh, North Coastal Andhra Pradesh, Karnataka & Kerala

Moderate difference in agricultural vigour was observed over many places of Valley region of Jammu & Kashmir; few places of North eastern states and West Bengal.

Standardised Precipitation Index Cumulative 4 weeks for the period 5th March to 1st April 2020



- Extremely/ Severely wet conditions exist in Srikakulam districts of Andhra Pradesh; Araria, Aurangabad, Banka, Bhabua, Bhagalpur, Bhojpur, East Champaran, West Champaran, Darbhanga, Gaya, Gopalganj, Jahanabad, Jamui, Katihar, Khagaria, Lakhisarai, Madhepura, Muzaffarpur, Nalanda, Nawada, Patna, Purnea, Rohtas, Samastipur, Saran, Sheikhpura, Siwan, Supaul, Vaishali, Arwal districts of Bihar; Kheda, Sabarkantha, Surat, Gandhinagar, Narmada, Navsari, Aravalli, Chhota Udepur, Mahisagar, Junagarh, Porbandar, Botad, Gir Somnath, Morbi districts of Gujarat; Ambala, Gurgaon, Hisar, Jind, Karnal, Mahendragarh, Mewat, Rohtak, Bhiwani, Faridabad, Kurukshetra, Sirsa, Sonapat, Yamuna Nagar, Kaithal, Panipat, Rewari, Panchkula, Fatehabad, Jhajjar, Palwal districts of Haryana; Bilaspur, Chamba, Kangra, Hamirpur, Sirmaur, Solan, Una districts of Himachal Pradesh; Jammu, Reasi, Udhampur districts of Jammu; Betul, Bhind, Bhopal, Gwalior, Harda, Khandwa, Morena, Shajapur, Ujjain, Balaghat, Chhatarpur, Chindwara, Dindori, Shahdol, Umaria, Anuppur, Singrauli districts of West Madhya Pradesh; Ahmednagar, Aurangabad, Buldhana, Nagpur, Wardha, Gondia Districts of Maharashtra; Angul, Boudhgarh, Cuttack, Jharsuguda, Kendrapara, Nawapara, Kandhamal, Sambalpur, Sundargarh districts of Orissa; Bhatinda, Ferozepur, Gurdaspur, Jalandhar, Kapurthala, Mansa, Ludhiana, Patiala, Moga, Ropar, Sangrur, Faridkot, Nawanshahar, Sas Nagar, Mohali, Fatehgarh Sahib, Tarn Taran, Barnala districts of Punjab; Bikaner, Churu, Sri Ganganagar, Jaisalmer, Jalore, Nagaur, Hanumangarh, Ajmer, Alwar, Bharatpur, Bhilwara, Bundi, Chittorgarh, Jaipur, Jhunjhunu, Kota, Sawai Madhopur, Sikar, Udaipur, Baran, Dausa, Rajsamand, Karauli districts of Rajasthan; Chandigarh, Diu districts of Union Territory; Allahabad, Ambedkar Nagar, Azamgarh, Bahraich, Balrampur, Barabanki, Basti, Faizabad, Gonda, Gorakhpur, Jaunpur, Kannauj, Kanpur City, Kheri, Lucknow, Maharajganj, Mirzapur, Pratapgarh, Siddharth Nagar, Sitapur, Sultanpur, Sonbhadra, Varanasi, Sahuji Mah Naga, Sant Ravidas Nagar, Aligarh, Auraiya, Baghpat, Bareilly, Bijnor, Badaun, Bulandshahar, Kanshiram Nagar, Etah, Etawah, Firozabad, Hamirpur, Mahamaya Nagar, Mainpuri, Mathura, Moradabad, Muzaffarnagar, Pilibhit, Shahjahanpur, Saharanpur, Sambhal, Shamli districts of Uttar Pradesh; Malda, Burdwan districts of West Bengal; Bokaro, Chatra, Deoghar, Dhanbad, Dumka, Garhwa, Giridih, Godda, Gumla, Hazaribag, Koderma, Lohardaga, Pakur, Palamu, Ranchi, East Singhbhum, West Singhbhum, Jamtara, Simdega, Latehar, Seraikela-Khar, Ramgarh, Khunti districts of Jharkhand; Dehradun, Hardwar, Nainital, Garhwal Pauri, Garhwal Tehri, Udham Singh Nagar, Bageshwar districts of Uttarakhand; Bilaspur, Durg, Janjgir, Jashpur,

Korba, Koriya, Kowardha, Raigarh, Raipur, Surguja, Balod, Balrampur, Surajpur districts of Chhatisgarh; New Delhi district of Delhi Adilabad, Medak, Kamareddy districts of Telangana.

- Extremely/Severely dry conditions exist in Changlang, Lohit, Papumpara districts of Arunachal Pradesh; Cachar, Darrang, Goalpara, Kamrup, Lakhimpur, Nagaon, Dibrugarh, Jorhat, Karbi Anglong, Karimganj, Shonitpur, Nalbari, Golaghat, Tinsukia, Hailakandi, Baksa districts of Assam; Imphal West district of Manipur; East Khasi Hills district of Meghalaya; Aizwal, Champhai, Kolasib, Lunglei, Saiha, Serchhip districts of Mizoram; Mon, Paren districts of Nagaland; Salem, Toothukudi, Virudhunagar districts of Tamilnadu; North Tripura, West Tripura, South Tripura districts of Tripura; Nicobar district of Andaman and Nicobar Islands.
- Moderately wet to moderately dry conditions were experienced in remaining districts in the country.

Weather Forecast for next 5 days valid upto 0830 hours of 14th April, 2020

- ◆ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table below.
- ◆ Gradual rise in maximum temperatures by 2-3°C over plains of northwest India during next 2 days. No significant change in temperature over rest parts of the country.

5 Day Rainfall Forecast (MID-DAY)

9th April 2020

Met-Sub-Division	09-Apr Today	10Apr Fri	11Apr Sat	12Apr Sun	13Apr Mon
1. Andaman & Nicobar Islands	DRY	ISOL	ISOL	ISOL	ISOL
2. Arunachal Pradesh	FWS	SCT	SCT	FWS	SCT
3. Assam & Meghalaya	FWS	SCT	FWS	FWS	SCT
4. N. M. M. & T.	SCT	SCT	FWS	SCT	SCT
5. S.H. West Bengal & Sikkim	SCT	SCT	ISOL	ISOL	ISOL
6. Gangetic West Bengal	ISOL	ISOL	ISOL	ISOL	DRY
7. Odisha	ISOL	ISOL	ISOL	ISOL	ISOL
8. Jharkhand	ISOL	DRY	DRY	DRY	DRY
9. Bihar	DRY	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhand	ISOL	ISOL	DRY	DRY	ISOL
13. Haryana, Chd & Delhi	ISOL	ISOL	DRY	DRY	DRY
14. Punjab	ISOL	ISOL	DRY	DRY	DRY
15. Himachal Pradesh	ISOL	ISOL	DRY	DRY	ISOL
16. J & K and Ladakh	SCT	ISOL	DRY	DRY	ISOL
17. West Rajsthan	ISOL	ISOL	DRY	DRY	DRY
18. East Rajasthan	DRY	ISOL	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	DRY	DRY	DRY	ISOL
20. East Madhya Pradesh	DRY	DRY	DRY	DRY	ISOL
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	DRY	ISOL	ISOL	ISOL	DRY
24. Madhya Maharashtra	DRY	ISOL	ISOL	ISOL	ISOL
25. Marathawada	DRY	ISOL	ISOL	ISOL	ISOL
26. Vidharbha	DRY	ISOL	ISOL	ISOL	ISOL
27. Chhattisgarh	ISOL	ISOL	ISOL	DRY	ISOL
28. Coastal A. P. & Yanam	SCT	ISOL	ISOL	ISOL	ISOL
29. Telangana	ISOL	ISOL	ISOL	ISOL	ISOL
30. Rayalaseema	ISOL	ISOL	DRY	DRY	DRY
31. T.N.,Puducherry & Karaikal	SCT	ISOL	ISOL	ISOL	ISOL
32. Coastal Karnataka	DRY	ISOL	ISOL	ISOL	ISOL
33. North Interior Karnataka	DRY	ISOL	ISOL	DRY	ISOL
34. South Interior Karnataka	SCT	SCT	ISOL	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 five days:

9 April (Day 1): ♦ **Thunderstorm accompanied with lightning & squall** (speed reaching 50-60 kmph) likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.

♦ **Thunderstorm accompanied with lightning, hail & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Sub-Himalayan West Bengal & Sikkim, Telangana, Rayalaseema and Tamilnadu, Puducherry & Karaikal; **with lightning & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Arunachal Pradesh, Odisha, Chhattisgarh, Jharkhand, Coastal Andhra Pradesh & Yanam and Kerala & Mahe and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Gangetic West Bengal and South Interior Karnataka.

♦ **Heavy rainfall** very likely at isolated places over north Coastal Andhra Pradesh & Yanam and Telangana.

10 April (Day 2): ♦ **Thunderstorm accompanied with lightning, hail & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Sub-Himalayan West Bengal & Sikkim and Telangana; **with lightning & gusty winds** (speed reaching 30-40 kmph) at isolated places over South Interior Karnataka and **with lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Odisha, Vidarbha, Chhattisgarh, Marathwada, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.

11 April (Day 3): ♦ **Thunderstorm accompanied with lightning & hail** very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya; **with lightning & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Nagaland, Manipur, Mizoram & Tripura and **with lightning** at isolated places over Sub-Himalayan West Bengal & Sikkim, Odisha, Vidarbha, Chhattisgarh, Marathwada and Madhya Maharashtra.

♦ **Heat Wave conditions** likely in isolated pockets over Saurashtra & Kutch.

12 April (Day 4): ♦ **Thunderstorm accompanied with lightning** likely at isolated places over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Vidarbha, Marathwada and Madhya Maharashtra.

♦ **Heat Wave conditions** likely in some pockets over Saurashtra & Kutch and in isolated pockets over Gujarat region.

13 April (Day 5): ♦ **Thunderstorm accompanied with lightning & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Telangana and Coastal Andhra Pradesh and **with lightning** at isolated places over Vidarbha, Chhattisgarh, South Interior Karnataka, Marathwada and Madhya Maharashtra.

♦ **Heat Wave conditions** likely in some pockets over Saurashtra & Kutch and in isolated pockets over Gujarat region.

Weather Outlook for subsequent 2 days from 14th to 16th April, 2020

- Scattered to fairly widespread rain/thundershowers likely over Western Himalayan region and isolated rain over adjoining plains. Isolated to scattered rain/thundershowers likely over Northeast India, Central & Peninsular India and over Bay Islands.
- Weather is likely to be dry over rest of the country.

Salient advisories

- Advisory for Desert Locust:
 - In Arid Western Plain Zone of Rajasthan, where there is attack of desert locust in Bikaner and Jaisalmer districts, apply Chloropyriphos (50%) @ 1 ml/litre or (20%) @ 2.5 ml/litre of water in standing crops.
- Thunderstorm accompanied with lightning & squall (speed reaching 50-60 kmph) likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 9th; with lightning, hail & gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Rayalaseema and Tamilnadu, Puducherry & Karaikal on 9th, over Sub-Himalayan West Bengal & Sikkim and Telangana on 9th & 10th and over Arunachal Pradesh and Assam & Meghalaya on 11th; with lightning & gusty winds (speed reaching 30-40 kmph) very likely at isolated places over Arunachal Pradesh, Odisha, Chhattisgarh, Jharkhand and Kerala & Mahe on 9th, over Coastal Andhra Pradesh & Yanam on 9th & 13th, over South Interior Karnataka on 10th, over Nagaland, Manipur, Mizoram & Tripura on 11th and over Telangana on 13th; with lightning at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad on 9th, over Gangetic West Bengal on 9th & 10th, over South Interior Karnataka on 9th & 13th, over Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal on 10th, over Odisha on 10th & 11th, over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 10th & 12th, over Vidarbha, Marathawada, and Madhya Maharashtra from 10th to 13th, over Chhattisgarh on 10th, 11th & 13th and over Sub-Himalayan West Bengal & Sikkim on 11th, 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. Provide hailnet for orchard crops to protect from mechanical damage. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.
- As rain/thundershowers likely at many places over Arunachal Pradesh on 9th and 12th, over Assam & Meghalaya on 9th, 11th & 12th and over Nagaland, Manipur, Mizoram & Tripura (NMMT) on 11th along with Heavy rainfall very likely at isolated places over Telangana and north Coastal Andhra Pradesh & Yanam on 9th, avoid irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.
- As Heat Wave conditions likely in isolated pockets over Saurashtra & Kutch on 11th and over Gujarat region on 12th & 13th and in some pockets over Saurashtra & Kutch on 12th & 13th, apply irrigation at regular intervals and increase the frequency of irrigation at critical growth stages. Do soil mulching or apply light and frequent irrigation to the standing crops to cope up with the excess evaporative demand due to heat wave, mulching with straw/polythene to conserve soil moisture. Due to high temperature forecast, grazing /feeding of cattle/goats may be done during morning/evening hours. Keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule. Make arrangement of curtains and proper ventilation in poultry house.
- Undertake the following operations:
 - sowing of crops like ginger, turmeric, vegetables, etc. as intercrop in irrigated coconut gardens in High Altitude Zone of Kerala.
 - sowing of irrigated *cumbu* as direct sown in the prepared field in Western Zone of Tamil Nadu.
 - sowing of paddy in Nellore district of Southern Zone of Andhra Pradesh.
 - sowing of maize and nursery sowing of chili in Arunachal Pradesh.
 - sowing of jute and summer vegetables; planning of banana and transplanting of *Ahu* rice in Lower Brahmaputra Valley Zone of Assam.
 - land preparation for sowing of *Jhum* rice in Nagaland and Mizoram.
 - sowing of okra and cucurbitaceous vegetables like bitter gourd, ridge gourd and cucumber and planting of ginger in Odisha.
 - sowing of leafy vegetables in Gujarat.
 - field preparation for sowing of *mung*, *urd* and cucurbitaceous vegetables and transplanting of brinjal and tomato in Vindhya Plateau Zone of Madhya Pradesh.

- transplanting of cucurbits and solanaceous vegetables in Intermediate Zone of Jammu & Kashmir.
- sowing of Bt cotton or *desi* cotton in Western Zone of Punjab.
- transplanting of capsicum and brinjal and sowing of French bean in Bhabhar and Tarai Zone of Himachal Pradesh.
- sowing of sugarcane in East Uttar Pradesh.
- field preparation for *desi* cotton crop in Irrigated North Western Plain Zone of Rajasthan.

Detailed Agromet Advisories

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

Realised Rainfall: Significant rainfall occurred in Udupi district of Coastal Karnataka, Gadag district of North Interior Karnataka, Bangalore Urban, Bellary, Chamarajanagar, Chikballapur, Davangere, Kodagu, Ramnagar and Tumkur districts of South Interior Karnataka; Alappuzha, Ernakulam, Idukki, Kottayam, Kozhikode, Mahe, Malappuram, Thiruvananthapuram, Wayanad districts of Kerala; Dharmapuri, Salem districts of Tamilnadu and Medak district of Telangana. Weather remained dry over rest of the region.

- **As Thunderstorm accompanied with lightning, hail & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Rayalaseema and Tamilnadu, Puducherry & Karaikal on 9th and over Telangana on 9th & 10th; with **lightning & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Kerala & Mahe on 9th, over Coastal Andhra Pradesh & Yanam on 9th & 13th, over South Interior Karnataka on 10th and over Telangana on 13th; with **lightning** at isolated places over South Interior Karnataka on 9th & 13th, over Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal on 10th, 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. Provide hailnet for orchard crops to protect from mechanical damage. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.
- **As Heavy rainfall** very likely at isolated places over Telangana and north Coastal Andhra Pradesh & Yanam on 9th, avoid irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.

Kerala

- In Southern Zone, adopt phytosanitary measures in coconut gardens such as cleaning the crown of the palm, burning of fallen nuts due to mite infestation. Apply neem oil garlic emulsion (20 ml neem oil + 20 g garlic+5 g bar soap in 1 litre of water).
- In High Altitude Zone, crops like ginger, turmeric, vegetables etc. can be cultivated as intercrops in irrigated coconut gardens.
- In Problem Area Zone, in late sown crop attack of rice bug is expected. Due to desapping, grains show brownish discolored patches on the husk. To control spray fish Jaggery extract @6ml/L of water.
- In Central Zone, Tapioca can be planted during this month. With the onset of rain, tapioca is planted in mounds. Irrigation can be done in alternate days during the initial period.

Andhra Pradesh

- In Rayalaseema, continue harvesting of rabi groundnut when 70-80% of groundnut plant leaves and stem turn yellow colour and inside of the pod shell might have turned black colour pods which are to be used for sowing purpose should be dried under sun until the moisture content is 9%.
- In North Coastal Zone, undertake harvesting of rice and maize. Keep the harvested produce in safe place.
- In Krishna Godavari Zone, Present dry weather favourable for yellow mosaic virus in rice fallow Greengram. Sucking pests can be managed by removing the infected plant immediately after appearing the symptoms during early stage and apply neem oil 5 ml per litre of water or Neem kernel extract 5 ml per litre of water during clear weather. Take two sprayings in ten days intervals particularly in the evening times.
- In Nellore district of Southern Zone, before undertaking the sowing of paddy, treat the seeds with

Carbendizem @ 1 g/litre of water.

Telangana

- In Southern Telangana Zone, prevailing weather conditions are congenial for incidence of Whorl maggot and stem borer in rice; to control, apply Cartap Hydrochloride 50% SP @ 2 g per litre of water. If incidence of thrips is noticed in rice, spray Fipronil @ 2ml per litre of water during clear weather,
- In North Telangana Zone, the prevailing weather conditions are favourable for neck blast and gall midge in paddy. To control Neck blast, spray twice in a week with Tricyclozole + Mancozeb @ 2.5 g or Isoprothoilane @ 1.5 ml per litre of water and for gall midge, apply Carbofuran 3G granules @ 10 kg per acre during clear weather.

Tamil Nadu

- In Cauvery Delta Zone, harvest matured blackgram and greengram; after drying well under sun, thresh and separate the grains; dry the grains to 9% moisture before storage.
- In South Zone, due to the prevailing weather condition the occurrence of Onion Fly found in onion; the symptoms are: leaves get rotten, shredded and rolled up; adopt proper crop rotation and spray Malathion @ 1 litre/ha.
- In Western Zone, this is the right time for sowing irrigated Cumbu as direct sown in the prepared field and irrigate the field immediately.
- In Southern Zone, weather is conducive for the incidence of fruit rot in chilli; collect and destroy the infected fruits and spray Mancozeb 1 kg/ ha.
- In Hilly Zone, using expected rainfall, in potato crop, apply 50 kg Urea, 266 kg super phosphate and 40 kgs of potash at the time of sowing as basal and 30 days after sowing as top dressing.

Karnataka

- In North Interior Karnataka, apply irrigation in alternate rows of sugarcane crop. Grow onion /coriander / garlic on one side of the furrows of sugarcane crop which helps in reducing the incidence of shoot borer to some extent. Complete harvesting of chick pea, cotton, safflower and sorghum crops. For control of Blossom blight spray Mancozeb 75 WP @2.0 gm /litre of water.
- In South Interior Karnataka, for soil moisture conservation in mango orchard, weeds and crop residues mulching is recommended. Continue harvesting of pepper.
- In Coastal Karnataka, continue harvesting of fully matured watermelon. In Horticulture crops (Areca nut, Coconut, Banana) and other crops undertake mulching with farm waste followed by irrigation.

Animal Husbandry:

- In Karnataka, provide sufficient green fodder and drinking water to cattle to get sustained milk yield. For all age groups of poultry birds including local, broiler and layers give one dose of vaccine against Newcastle/Raniket disease in drinking water (Lasota / F-1 vaccine).

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

Realised Rainfall: Significant rainfall occurred in East Siang, Lower Dibang Valley and West Siang districts of Arunachal Pradesh; Aizwal district of Mizoram and South Tripura district of Tripura. Weather was mainly dry over the rest of the region.

- **Thunderstorm accompanied with lightning & squall** (speed reaching 50-60 kmph) likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 9th; with **lightning, hail & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Arunachal Pradesh and Assam & Meghalaya on 11th; with **lightning & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Arunachal Pradesh and over Nagaland, Manipur, Mizoram & Tripura on 11th; with **lightning** at isolated places over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 10th & 12th, provide mechanical support to banana, young fruit plants and vegetables to prevent the crops from lodging due to strong winds. Provide hailnet for orchard crops to protect from mechanical damage. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.

- As **rain/thundershowers** likely at many places over Arunachal Pradesh on 9th and 12th, over Assam & Meghalaya on 9th, 11th & 12th and over Nagaland, Manipur, Mizoram & Tripura (NMMT) on 11th, avoid irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.

Arunachal Pradesh

- In Arunachal Pradesh, harvest matured pods of mustard and potato. Continue sowing of maize and nursery sowing of chili. Make proper drainage in the field of maize to avoid water stagnation. Check for germination percentage of maize crop and fill the gaps if required.

Assam & Meghalaya

- In Hill Zone of Assam, continue land preparation/ sowing of summer vegetables, green gram and black gram. Keep harvested crop produce in safe places.
- In Upper Brahmaputra Valley Zone, continue their intercultural operations like weeding, light hoeing, earthing up in the maize crop fields. Lowland areas with higher water sub mergence which are not suitable for growing normal rice can be used for cultivating Bao or deep water rice. Apply Malathion 50 EC @ 5 ml per 3 litre of water against infestation of cut worm in the okra crops.
- In Lower Brahmaputra Valley Zone, continue sowing of jute, summer vegetables and planning of banana. Undertake transplanting of *Ahu* rice.
- In Barak Valley Zone, undertake stem cutting, leaf-bud cuttings and air layering in Assam lemon. Stem cutting may be raised in polyethylene bags under partial shade as the best nursery techniques.
- In Central Brahmaputra Valley Zone, continue sowing of Capsularis jute and summer vegetables like lady's finger, bottle guard, pumpkin, ridge guard, cucumber, etc. Undertake planting of sugarcane, papaya, ginger and turmeric.
- In Hill Zone, Lower Brahmaputra Valley Zone and Central Brahmaputra Valley Zone, apply Chloropyriphos 20 EC at the concentration of 0.02% solution or Carbofuran 3G @ 4 kg/bigha during clear weather against major insect pests like, whorl maggot, hispa, stem borer etc. at tillering stage of summer rice.
- In North Bank Plain Zone, undertake transplanting of early *Ahu* rice. Continue planting of banana, sugarcane, papaya, ginger and turmeric. There is chance of stem borer attack in citrus plants during this period; apply paste made by mixing lime, water and 5% Malathion dust on the stems of the plants up to a height of about 1m from the ground to prevent the attack.
- In Meghalaya, continue transplanting of 1 month old seedlings of cucurbits, brinjal, chilli, tomato and capsicum; irrigate immediately after transplanting. Continue sowing of pumpkin and bottle gourd. Undertake land preparation for sowing of maize.

Manipur, Mizoram, Tripura and Nagaland

- In Manipur, maintained water level at 5-8 cm after transplanting pre-kharif rice. Land ploughing for nursery of kharif rice may be started.
- In Mizoram, continue land preparation/ sowing of Urd/ green gram and cowpea. Undertake sowing of Jhum maize and cucurbit crops and apply fertilizer dose @ 80:60:40 kg N, P₂O₅ and K₂O/ha incorporate with soil before sowing.
- In Tripura, continue land preparation for sowing of Jhum rice. There is chance of attack of Yellow Stem Borer in Boro rice. Attack can be controlled by flooding the field which kills larvae and pupae. The level of irrigation water can be raised periodically to submerge the eggs deposited on the lower parts of the plant. The attack can also be managed by application of Thiomethoxam 1ml per 10 litre of water, twice at 7 days interval. To manage the attack Fruit & Shoot Borer in summer brinjal and tomato, apply Cypermethrin @ 1.5ml or Flubendamid 0.5 ml per litre of water.
- In Nagaland, undertake land preparation for sowing of Jhum rice and planting of ginger. Undertake

sowing of maize.

Animal Husbandry

- In Northeastern region, before the onset of monsoon, immunize the farm cattle against FMD (Foot & Mouth Disease), HS (Hemorrhagic Septicemia) and BQ (Black Quarter) diseases after consultation with local veterinary doctor. Vaccinate pig against Swine Fever.

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

Realised Rainfall: Significant rainfall occurred in Koraput and Malkangiri districts of Odisha and East Sikkim and North Sikkim districts of Sub-Himalayan West Bengal & Sikkim. Weather remained dry/mainly dry over the rest of the region.

- **Thunderstorm accompanied with lightning, hail & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Sub-Himalayan West Bengal & Sikkim on 9th & 10th; with **lightning & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Odisha on 9th; with **lightning** at isolated places over Gangetic West Bengal on 9th & 10th, over Odisha on 10th & 11th and over Sub-Himalayan West Bengal & Sikkim on 11th, 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. Provide hailnet for orchard crops to protect from mechanical damage. Keep harvested produce at safer places. Keep cattle/goats indoor during thunderstorm.

Odisha

- Undertake sowing of okra and cucurbitaceous vegetables like bitter gourd, ridge gourd and cucumber. Undertake planting of ginger rhizomes having 2-3 eyes. Continue harvesting of onion crop during clear weather when the leaves turn yellow. There may be chances of leaf folder and stem borer infestation in summer rice; spray Chlorantraniliprole 18.5% SC @ 0.3 ml/litre of water or Fipronil 5% SC @ 2 ml/litre of water in clear and dry weather. In case of fruit borer in Tomato, apply 80 ml Spinosad 14.5 SC in 200 litres of water/acre. In case of fruit and shoot borer in brinjal, apply 60ml Coragen 20 SC in 200 litres of water/acre.

Bihar

- Prepare field for sowing summer paddy. Continue sowing of summer green gram. Continue harvesting of wheat crop and matured fruits of vegetable crops during clear weather. Carry out harvesting and threshing of matured chickpea, oilseed, lentil and lathyrus crops; keep harvested crop in safe place after threshing. To prevent fruit drop in mango at pea stage, apply Planofix (NAA) @ 1 ml/3 litres of water during clear weather. Spray Imidacloprid @ 0.25 ml per litre of water during clear sky if there is high infestation of aphids in vegetable crops on a clear day.

Jharkhand

- Continue sowing of summer maize. Harvest wheat, chickpea and gram crops. Carry out weeding and inter-cultural operations in summer *moong* and *bhindi* crops. Spray Imidachloprid 1ml or Quinolphos 25 EC @ 1ml per litre of water for shoot and fruit borer in brinjal, chilli and tomato; install pheromone trap @ 2-3 traps per acre of crop field for monitoring the fruit borer. There is a chance of blast disease in summer rice crop; to control, spray Carbendazim 50 WP or Tricyclazole (Beam) @ 2g per litre of water during day time during clear weather.

West Bengal

- In Sub-Himalayan West Bengal, carry out weeding in maize crop. Continue land preparation and collect seeds for jute cultivation. Undertake planting of ginger after giving hot water treatment to ginger rhizomes and treating them with Trichoderma @ 5g per kg rhizomes. Prepare land for turmeric cultivation. Carry out harvesting of mature mustard crop. To prevent fruit drop and increase fruit size of

mango, spray Planofix @ 3ml along with compound micro nutrient @ 45g per 15 litres of water. If brown colour spots appear on *Boro* rice leaves, spray carbendazim 50% WP @ 2g/litre of water.

- In Gangetic West Bengal, to control BPH attack in *Boro* rice, spray Imidachlorpid @ 3ml/10 litres of water at the base of plant during evening hours; carry out stirring of plants at each 6th row for better penetration of solar radiation as BPH attack takes place at the base. To prevent Tobacco caterpillar in groundnut at flowering, pegging, pod formation, collect and destroy the adults and egg masses and spray Neem oil @ 20 ml/litre of water. Apply Sspinosad@1.5ml/litre of water for shoot and fruit borer in brinjal and okra crops.

Andaman & Nicobar Islands

- After harvesting the pulse crop, dry the seeds adequately to reduce moisture level to 10% and pack in polythene lined gunny bags for storage. Provide supplemental irrigation to vegetable crops as dry weather is likely to be continued. Collect and chop the available unwanted organic materials and fill the vermicompost tank for compost preparation.

Animal Husbandry

- Provide mineral mixture @ 50-60 g to adult and 30-40 g to growing animals every day to boost their immunity. Provide cool clean drinking water mixed with electrolyte powder to poultry birds to prevent from heat stress.

Fishery

- Prepare the nursery pond for the next fish breeding season.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Realised Rainfall: Significant rainfall occurred Aurangabad district of Marathwada, Nagpur, Wardha of Vidharbha, in Maharashtra. Weather remained dry/mainly dry over the region.

- **Advisories: Thunderstorm accompanied with lightning** at isolated places over Vidarbha, Marathawada and Madhya Maharashtra from 10th to 13th, 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 Heat Wave conditions** likely in isolated pockets over Saurashtra & Kutch on 11th and over Gujarat region on 12th & 13th and in some pockets over Saurashtra & Kutch on 12th & 13th, apply irrigation at regular intervals and increase the frequency of irrigation at critical growth stages. Do soil mulching or apply light and frequent irrigation to the standing crops to cope up with the excess evaporative demand due to heat wave, mulching with straw/polythene to conserve soil moisture. Due to high temperature forecast, grazing /feeding of cattle/goats may be done during morning/evening hours. Keep animals under shade/shed during noon hours and provide plenty of water mixed with minerals for drinking. Also provide balanced feed & adopt vaccination schedule. Make arrangement of curtains and proper ventilation in poultry house.

Maharashtra

- In Konkan, continue harvesting of matured rice, mangoes and cashews. Keep harvested produce in safer place. Cover the banana bunches with gunny cloth to protect the fruits from bright sunlight. To control stem borer in cashew, spray Chlorpyrifos 20 EC @ 5 ml per liter of water on the stem.
- In Madhya Maharashtra, To control leaf eating caterpillar in groundnut, spray Chlorpyrifos @ 20 ml per 10 liters of water. To control chiku moth (*Nephopteryx eugraphella*) in sapota, spray Profenofos 50 EC @ 10 ml per 10 liters of water. Apply mulch in mango orchards. To protect young coconut plants from bright sunlight erect shade net.

- In Marathawada, continue harvesting of wheat. Keep harvested produce in safer place. To control white fly in sugarcane, spray Chlorpyrifos 20 % @ 30 ml or Fipronil 5 % @ 30 ml per 10 liters of water.
- In Vidarbha, continue harvesting of wheat, watermelon and muskmelon. Keep the harvested produce in safer place. Apply 3rd dose of Nitrogen @ 25% (Urea @ 54 Kg) kg/ha to rice crop (panicle initiation stage). To control blast in sesame, spray Copper Oxychloride @ 25 g + Streptocycline @ 6 g in 10 liters of water. Continue cultivation of summer vegetables like bitter gourd, tinda, ridge gourd, bottle gourd, cowpea, clusterbean and coriander. To control hoppers in mango, spray Imidacloprid 17.8% SL @ 4ml per 10 liters of water.

Gujarat:

- In North Gujarat, carry out intercultural operations in groundnut, pearl millet, sesame, green gram, and cowpea crops. Apply irrigation in standing crops. Undertake harvesting of papaya fruits.
- In Middle Gujarat, carry out harvesting of tobacco and stored at safe place. Undertake intercultural operations in green gram, pearl millet, cowpea and vegetable crops. Complete threshing of wheat crop. Apply irrigation in standing sown crops as per requirement.
- In South Gujarat, maintain 2-3 cm water level in transplanted rice fields. Undertake weeding in rice, sugarcane crop as per need and earthing up in sweet potato and sugarcane crops. Continue sowing of leafy vegetables.
- In Saurashtra and Kutch, apply light irrigation to groundnut crop at flowering stage. To prevent Phytophthora blight and wilt, do not over irrigate sesame crop, apply light irrigation as per need only. To prevent dropping of immature fruits in mango, spray @ NAA 2 gm and Urea 2 kg in 100 litres of water.

Animal Husbandry

- In Gujarat, for milch animals, regularly follow schedule of 1 kg feed + 50 g mineral mixture per 2 litres of milk yield. Spray phenyl in the animal shed to prevent mosquitoes and flies.

CENTRAL INDIA [M.P., CHHATTISGARH]

Realised Rainfall: Significant rainfall occurred in Chhindwara, Betul, Bhopal, and Shajapur districts of Madhya Pradesh and in Balod district of Chhattisgarh. Weather remained dry/mainly dry over the rest of the region.

- **Advisories: Thunderstorm accompanied with lightning & gusty winds** (speed reaching 30-40 kmph) very likely at isolated places over Chhattisgarh on 9th, with **lightning** at isolated places over Chhattisgarh on 10th, 11th & 13th, 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, carry out harvesting of wheat crop at physiological maturity or at 12-14 % grain humidity; before storage, clean grains properly and dry them to the recommended level of moisture content; clean the storage place; repair the cracks and crevices in the walls and if possible, spray 0.5 % Malathion solution and keep the chamber closed for 7-8 days. Harvest chickpea crop and store safely. Harvest mustard crop in a timely manner because in current weather conditions, there may be loss of seeds due to the crackling of the pods; store at a safe place. Continue sowing of summer seasons vegetables like lady finger, cluster bean, chilli, tomato, etc. Make irrigation system in mango orchards and apply mulching with native manure when water availability is low. Carry out trimming and pruning of berry plants.
- In the Keymore Plateau Zone, harvest wheat and chickpea crops and store in a safe place. Continue sowing of summer moong. Continue field preparation and sowing of okra, barwati, beans, French

beans, etc. after seed treatment with fungicide Bavistin or SAAF at the rate of 2g per kg seeds. For an outbreak of leaf miner virus in mango and lemon, spray Rogar or Metasystok 1.5 ml per litre of water.

- In Vindhya Plateau Zone, prepare field for the sowing of mung, urd and cucurbitaceous vegetables. Continue transplanting of brinjal and tomato. Carry out gap filling in mango orchards with new plants. Harvest standing Rabi crops immediately and store the grains at up to 8% moisture.
- In Jhabua Hills Zone, harvest wheat and gram crops; dry them properly carry out threshing and store in a safe place. Dig out mature rhizomes of ginger and turmeric. Undertake sowing of summer green gram. Apply irrigation to mango at the time of fruit setting. Give timely irrigation and recommended dose of fertilizers to summer cucurbits, okra, spinach and cluster bean crops.
- In the Nimar valley Zone, clean the storage places before storing harvested grains. Monitor for mango hopper and mango mealy bug; destroy infected inflorescence if mango malformation is found. To control shoot and fruit borer in brinjal crop, collect and destroy infested fruits and shoots by burying them; if pest population is high, spray Spinosad 48 EC @ 1 ml per 4 litres of water.
- In Bundelkhand, undertake sowing of summer moong after seed treatment with Rhizobium culture. Carry out hoeing and weeding in vegetable fields and fruit orchards. There is a possibility of red pumpkin beetle attack in bhindi crops at flowering/fruitletting stage; spray Triazophos 40 E.C. @ 2 ml per litre of water spray in clear sky condition. Spray M.H. (Maleic Hydrazide) @ 2000 ppm per 15 litres of water 15-20 days prior to maturity of onion crop for better storage. Spray Quinolphos 25 E.C. @ 2.0 ml per litre of water for control of shoot and fruit borers in tomato and brinjal crops at flowering/fruitletting stage.
- In Gird Zone, carry out harvesting of matured wheat crop and keep it in a safe storage place. Continue harvesting matured black gram and chickpea crops. There may be an attack of red pumpkin beetle in cucurbitaceous crops; spray Chlorpyrifos at 1.5-2 ml per litre of water.

Chhattisgarh

- In the Chhattisgarh Plains Zone, continue harvesting of matured Rabi crops and take the produce to the market. Farmers and agricultural labours involved in crop cutting, plucking of fruits/vegetables and poultry/fishery are advised to take necessary precautions against the spread of COVID-19 virus and follow social distancing.
- In Northern Hill Zone, continue harvesting, drying and threshing of wheat, gram, lathyrus, linseed, lentil and mustard crops which was turned wet from the rain; keep clean and healthy seed for sowing for next year. Plough the field and keep it ready for summer crops like sesamum, green gram, black gram and vegetables. Irrigate banana and papaya seedlings once a week; irrigation time should be more in the drip system. Complete planting of sugarcane after treating sugarcane sets with fungicide like Agallol. Carry out intercultural operation in the February sown crops like okra, cowpea and cluster bean followed by irrigation. Attack of stem borer may be seen in summer rice at tillering stage; use of pheromone traps @ 10 Nos./acre; collect and destroy the egg clusters.
- In Bastar Plateau Zone, wheat crop is in maturity stage; harvest the crop and dry it up to 12% moisture content and store with dried neem leaves. There may be an attack of steam borer in summer rice; apply Chlorphyriphos 1.5 ml/litre of water.

Animal Husbandry

- Repair animal sheds in view of the approaching summer season. Provide 50g Iodized salt and 50 to 100 g mineral mixture with green fodder daily to milch animals. Vaccinate cattle against HS disease and Poultry against Ranikhet disease.

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

Realised Rainfall : Significant rainfall occurred in all the districts of Himachal Pradesh except Bilaspur, Hamirpur, Sirmaur and Solan; in Anantnag, Ganderbal, Kulgam, Kupwara, Poonch, Ramban, Srinagar districts of Jammu and Kashmir. in Dehradun, Garhwal Tehri, Rudraprayag and Uttarkashi districts of Uttarakhand; in Baghpat region of west Uttar Pradesh; in Jalandhar, Gurdaspur, Kapurthala and Ropar districts of Punjab and in Jind and Sonipat districts of Haryana. Weather remained dry/mainly dry over the rest of the region.

- **Advisories: Thunderstorm accompanied with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad on 9th, provide mechanical support to 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.

Jammu & Kashmir

- In Cold Arid Zone, apply irrigation after nursery sowing of vegetables like tomato, brinjal, chilli and capsicum. Continue plantation of fruit plants.
- In Valley Temperate Zone, carry out weeding followed by hoeing in rabi crops like wheat, oats, lentil, pea, brown sarson and chick pea.
- In Sub-Tropical Zone, continue transplanting of tomato, brinjal and chilli. Continue sowing of okra.
- In Intermediate Zone, carry out intercultural operations in onion and garlic. Continue transplanting of cucurbits and solanaceous vegetables. Farmers are advised to monitor the attack of aphids on mustard crop. If observed, spray Chlorpyrifos 20EC (0.05%) or Dimethoate (0.03%) or Metasystox @ 1 ml per litre of water. Weather is congenial for the infestation of yellow rust in wheat crop. Keep strict vigil on appearance of disease. If observed, apply Propiconazole (Tilt) 25 EC @ 0.1 % (1ml/litre of water) during clear weather conditions.

Himachal Pradesh

- In High Hill Temperate Dry Zone, undertake sowing of peas. Use 250 kg seed/ha. in lines atleast a feet apart. Treat the seeds with 2.5g Bavistin/kg of seed carefully to avoid yellowing of the plants. Undertake preparation of nursery bed for sowing of cabbage and cauliflower.
- In Sub Montane and Low Hills Sub Tropical Zone, complete sowing of green gram in irrigated areas. Continue harvesting of matured mustard. Undertake harvesting of matured wheat. Undertake sowing of peas and French beans. Carry out intercultural operations in sunflower. Carry out intercultural operations in vegetables like radish, carrot, turnip, spinach, fenugreek, carrot, broccoli and lettuce. Apply mulch in ginger and turmeric. This is the optimum time for picking of tea leaves at 6-7 days interval to maintain the quality and productivity.
- In Mid Hills Sub Humid Zone, apply irrigation to pea, tomato and wheat. Carry out grafting in apple nursery. To control late blight disease in potato, spray Carbandizam@ 1.0 gm/litre of water.

Punjab, Haryana, Delhi

- In Western Zone of Punjab do not irrigate crop nor spray any chemical to crops. Undertake sowing of Bt cotton or desi cotton during this month. Undertake harvesting of early sown wheat and mustard crop on a clear day. Undertake planting of evergreen fruit plants such as citrus, guava, mango, papaya, sapota, litchi, loquat etc. Observe the fields for appearance of aphids, if the population reached the economic threshold level (ETL) i.e. 5 aphids/ear head, spray the crop with 20g Actara/Taiyo 25 WG (thiamethoxam) in 80-100 litre of water per acre. Prevailing weather is favourable for early blight of tomato, spray Indofil M-45 @ 600 gm in 200 litre of water per acre to protect tomato from late blight on a clear day.

- In Undulating Plain Zone of Punjab, harvest timely sown wheat. Remove excess water from the fields. Apply need based irrigation and fertilizers as per weather in sugarcane, mango and litchi.
- In Central Plain Zone of Punjab, undertake sowing of Bt cotton or desi cotton during this month and direct sowing of all the cucurbits, okra and cowpea. Prevailing weather is favourable for early blight of tomato, spray Indofil M-45 @ 600 gm in 200 litre of water per acre to protect tomato from late blight on a clear day.
- In Western Zone of Haryana, due to possibility of dry weather conditions, undertake harvesting/threshing of matured mustard and barley crop. Apply need based irrigation in late sown wheat crop and late sown chickpea crop and monitor for pod borer insect in chickpea. Complete sowing of summer green gram crop.
- In Eastern Zone of Haryana, undertake harvesting of mustard and timely sown wheat crop. Undertake sowing of green gram. In present weather condition, monitor constantly timely sown seed onion crop against attack of thrips.
- In Delhi, undertake harvesting of timely sown wheat crop. Apply light irrigation in all vegetables during morning or evening hours. Undertake sowing of green gram. In view of increasing temperature and wind velocity, irrigate late sown wheat crop in milking and grain filling stage and apply light irrigation in the evening hours. Monitor constantly lady finger crop against attack of mite and timely sown seed onion crop against attack of thrips.

Uttar Pradesh:

East Uttar Pradesh

- Undertake harvesting and threshing operations of wheat. Continue harvesting and threshing of mature mustard crop. Harvest papaya fruits. Undertake sowing of sugarcane. Irrigation and intercultural operations to be done as per requirement for timely sown sugarcane, bottle gourd, bitter melon. Sowing of green manuring cluster bean, daincha, senai, lobia etc. is advised where harvesting of rabi crop is over. To prevent yellow vein disease in lady's finger spray dimethoate-30 EC. 1.5 litre/ ha in 600-700 litre of water when the sky is clear. To prevent fruits from falling in mango, sprinkle on the tree with a 2 percent solution of urea.

West Uttar Pradesh

- Continue sowing of maize, green gram, bajra, sorghum, lobia and black gram. Undertake harvesting and threshing operations of wheat. Undertake harvesting of Bengal gram and chick pea when golden colour is appeared. There is a possibility of an outbreak of thrips / green moth in the black gram crop, spray Oxydemeton-methyl 25% EC or Dimethoate 30% EC @ 1.0 litre / ha in 600-700 litre of water when the sky is clear. For preventing mango fruit falling, spray Naphthalene Acetic acid in 20 mg / litre of water or Planofix 5 mg / 10 litres of water when the sky is clear.

Uttarakhand

- In Sub Humid Sub Tropic Zone, postpone harvesting of wheat crop due to forecast of gusty wind. Keep the harvested mustard in safe place. Use wind breaks in the North-West and North-East directions surrounding the mango orchard to prevent the mango flowers from gusty winds.
- In Bhabar and Tarai Zone, continue harvesting of wheat. Undertake sowing of sorghum as a fodder crop. Undertake transplanting of capsicum and brinjal. Undertake plucking of vegetable pea. Undertake sowing of French bean.
- In Hill Zone, undertake sowing of barnyard millet. If the leaves in onion are yellowing from upper to lower portion, apply Copper Oxy Chloride @ 2.5 gm / litre water + sticker 0.5 ml. Second spraying may be done at 10 days interval. 4-5 days after first spray, apply NPK 19: 19: 19 @ 5 gm / litre water. Avoid any spray of pesticides after flowering in apple trees. Install honey bee boxes during flowering to enhance pollination.

Rajasthan

- In Arid Western Plain Zone, harvest wheat crop and undertake field preparation for cotton crop.
- In Irrigated North Western Plain Zone, undertake field preparation and sowing of *Desi* cotton from first week of April. Apply zinc sulphate (Commercial grade) @ 6 kg/bigha in the soil at root-rot affected fields.

- In Internal Drainage Dry Zone, undertake harvesting of wheat, mustard, taramera, gram and barley
- In Hyper arid Partial irrigated zone, to get green fodder during June - July months fodder crops like fodder pearl millet, sorghum, cowpea can be done at this time as per the availability of water.
- In Sub Humid Southern Plain Zone, undertake harvesting of wheat.

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