



National Agromet Advisory Service Bulletin

Friday 4th May 2018
(For the period 4th to 9th May 2018)



Issued by
India Meteorological Department

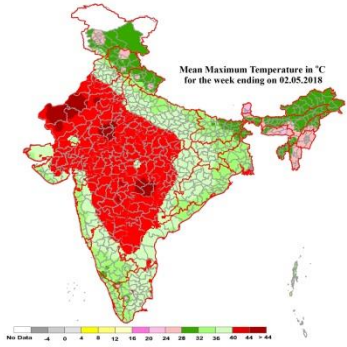
Weblink For

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

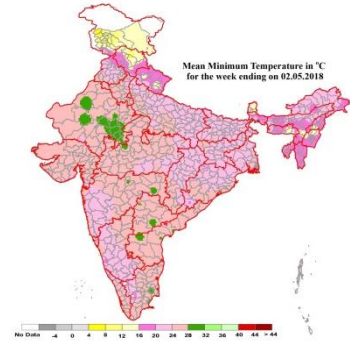
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Spatial distribution of weather parameters for the week ending 02.05.2018

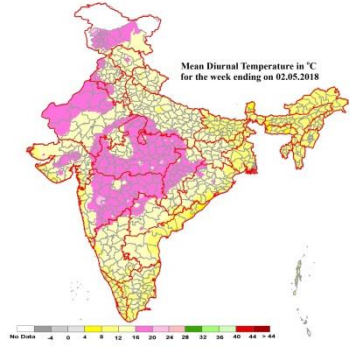
Mean Maximum Temperature (°C) for the week ending 02.05.2018



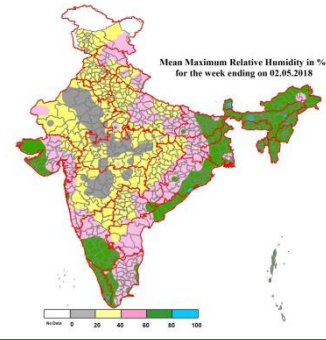
Mean Minimum Temperature (°C) for the week ending 02.05.2018



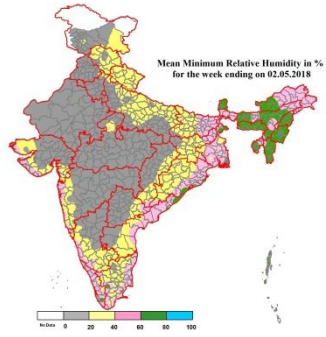
Mean Diurnal Temperature Variation (°C) for the week ending 02.05.2018



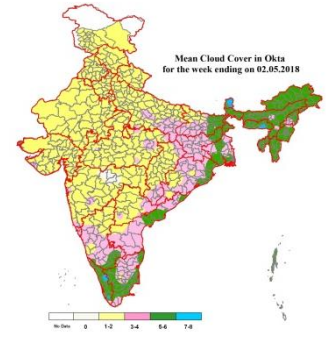
Mean Maximum Relative Humidity (%) for the week ending 02.05.2018



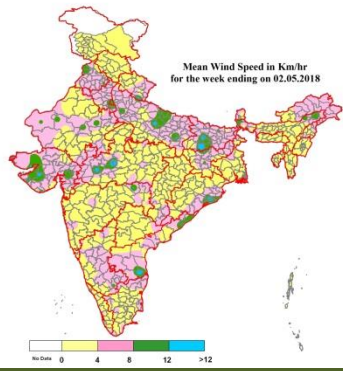
Mean Minimum Relative Humidity (%) for the week ending 02.05.2018



Mean Cloud Cover (okta) for the week ending 02.05.2018

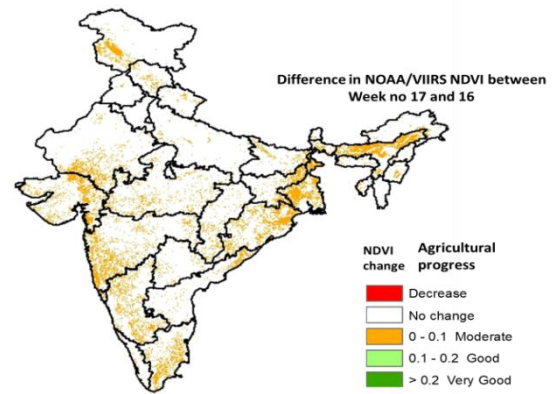
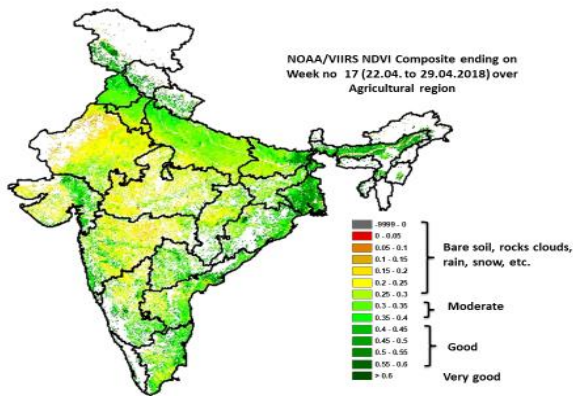


Mean Wind Speed (km/hr) for the week ending 02.05.2018



NOAA/VIIRS NDVI composite ending on 29th April 2018 over Agricultural regions of India

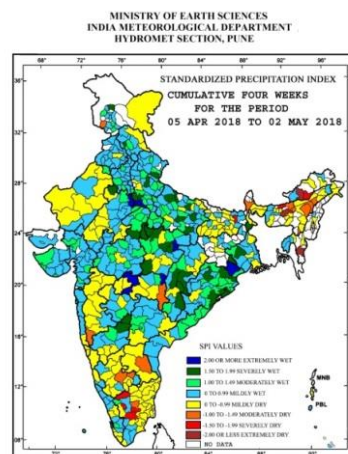
Difference in NOAA/VIIRS NDVI between 22nd April and 29th April 2018



- Agriculture vigour is good to moderate over Indo-gangetic plains, East coast and western coast of Maharashtra, some parts of Gujarat, interior parts of Tamil Nadu, Coastal part of Andhra Pradesh and Odisha and Telangana.

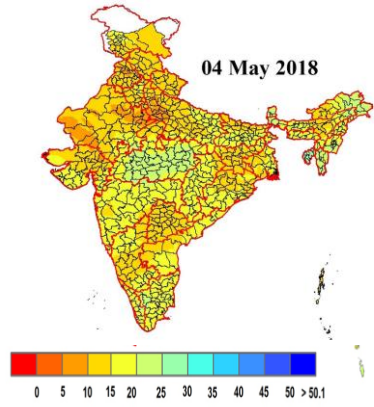
- Moderate progress of agricultural vigour was observed over many parts of the country.

**Standardised Precipitation Index
Cumulative 4 weeks for the period 5th April to 2nd May 2018**

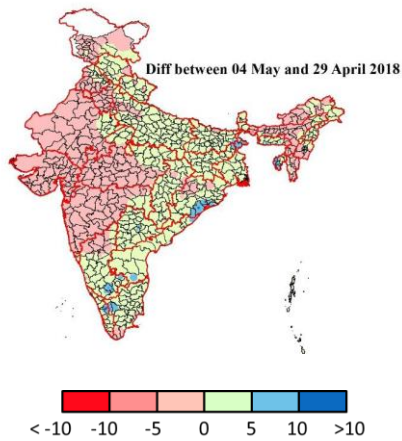
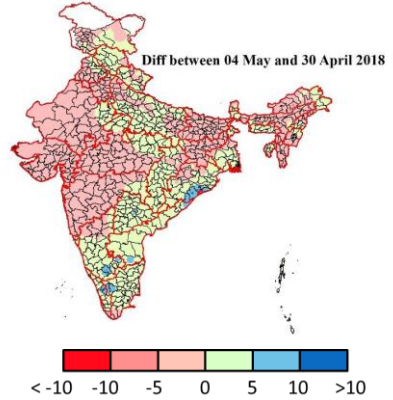
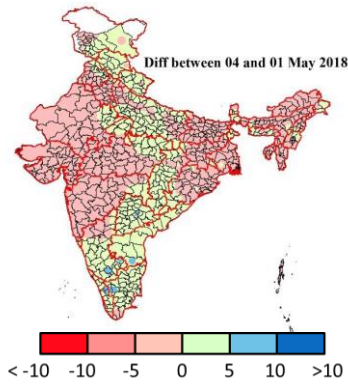
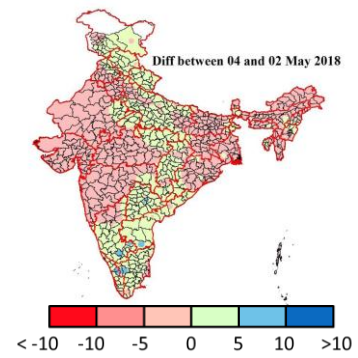
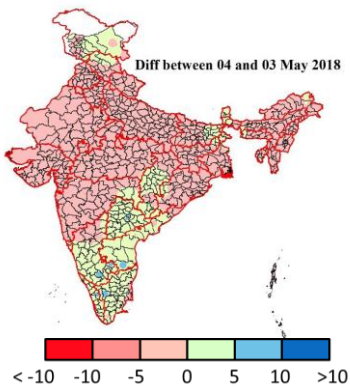


- Extremely/severely wet conditions experienced in Malda, Bankura district of West Bengal; Bhadrak, Ganjam, Keonjhar, Khurda, Mayurbhanj, Puri, Sambalpur districts of Odisha; East Singhbhum district of Jharkhand; Azamgarh, Bahraich, Basti, Mirzapur, Pratapgarh, Sitapur, Agra, Mahamaya Nagar, Lalitpur, Mathura, Moradabad districts of Uttar Pradesh; Nainital districts of Uttarakhand; Chandigarh districts of Haryana; Hamirpur, Bandipore, districts of Himachal Pradesh; Bharatpur, Jhunjhunu districts of Rajasthan; Ashoknagar, Chhatarpur, Chhindwara, Katni, Shahdol, Tikamgarh, Umaria districts of Madhya Pradesh; Dadara & Nagar Haveli, district of Gujarat Region; Mumbai Suburban district of Konkan & Goa; Amraoti, Gondia, Washim districts of Maharashtra; Bastar, Dhamtari, Durg, Raipur districts of Chhattisgarh; Bidar, Gulbarga districts of Karnataka.
- Extremely/Severely dry conditions experienced in few districts of Arunachal Pradesh; Kamrup, Baksa districts of Assam; Madhepura district of Bihar; Dindigul, Karur, Tirupur districts of Tamil Nadu & Puducherry; Chamarajanagar district of Karnataka.
- Moderately dry conditions experienced in few districts of Assam; Darjeeling district of West Bengal; Rajouri district of Jammu & Kashmir; Kolhapur, Gadchiroli districts of Maharashtra; Cuddapah district of Andhra Pradesh; Namakkal districts of Tamil Nadu & Puducherry; Tumkur, Chickballapur districts of Karnataka.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

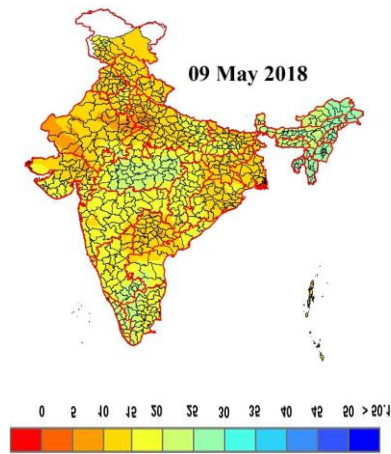
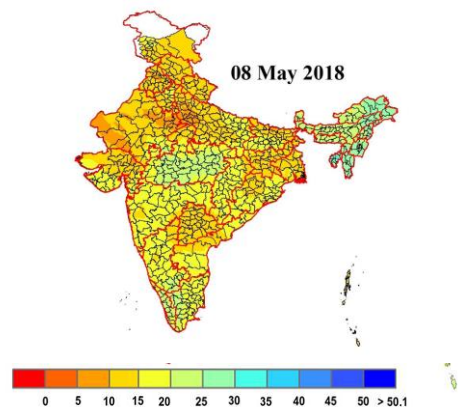
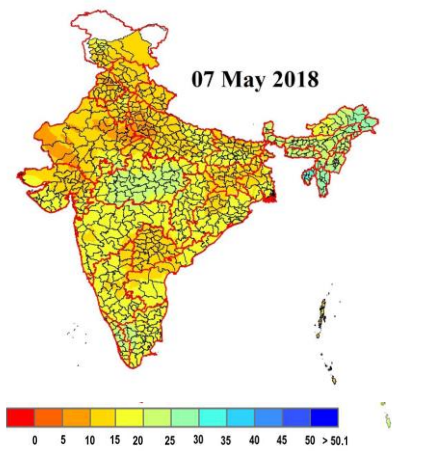
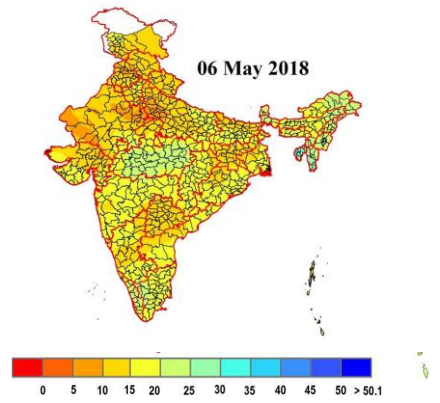
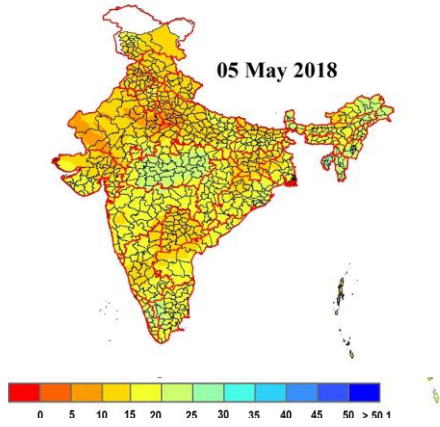
Daily Soil Moisture (mm) for 4th May 2018 (ending at 0830 IST) for 60 cm depth



Difference of Soil Moisture (mm) for 60 cm depth



**Forecasted Soil Moisture (mm) from 5th May to 9th May 2018 (ending at 0830 IST)
for 60 cm depth**



Weather Forecast for next 5 days valid upto 0830 hours of 9th May 2018

- Meteorological subdivision wise detailed 5 days rainfall forecast is given in Table below.
- Maximum temperatures are likely to rise by 2-3°C over East India from 5th May onwards.
- Maximum temperatures are likely to continue to remain in the range of 40-43°C over parts of Gujarat, Telangana, Rayalseema and Interior Maharashtra during next 48 hours.
- No significant change in maximum temperatures over rest of the country during next 48 hours.

5 Day Rainfall Forecast (Mid day) 4th May 2018

Met-Sub-Division	04-May Today	05May Sat	06May Sun	07May Mon	08May Tue
1. Andaman & Nicobar Islands	FWS	SCT	SCT	SCT	SCT
2. Arunachal Pradesh	SCT	FWS	FWS	FWS	SCT
3. Assam & Meghalaya	WS	WS	WS	WS	FWS
4. N. M. M. & T.	WS	WS	WS	WS	FWS
5. S.H. West Bengal & Sikkim	WS	FWS	FWS	FWS	FWS
6. Gangetic West Bengal	SCT	ISOL	ISOL	ISOL	DRY
7. Odisha	ISOL	ISOL	ISOL	ISOL	DRY
8. Jharkhand	ISOL	ISOL	ISOL	DRY	DRY
9. Bihar	ISOL	ISOL	ISOL	ISOL	ISOL
10. East Uttar Pradesh	ISOL	ISOL	DRY	ISOL	ISOL
11. West Uttar Pradesh	ISOL	ISOL	ISOL	ISOL	SCT
12. Uttarakhand	SCT	SCT	FWS	FWS	FWS
13. Haryana, Chd & Delhi	ISOL	ISOL	ISOL	SCT	FWS
14. Punjab	ISOL	ISOL	SCT	FWS	FWS
15. Himachal Pradesh	SCT	FWS	WS	WS	FWS
16. Jammu & Kashmir	SCT	FWS	WS	WS	FWS
17. West Rajsthan	ISOL	DRY	DRY	ISOL	ISOL
18. East Rajasthan	ISOL	DRY	DRY	ISOL	ISOL
19. West Madhya Pradesh	ISOL	DRY	DRY	DRY	ISOL
20. East Madhya Pradesh	ISOL	DRY	DRY	DRY	DRY
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	DRY	DRY	DRY	DRY	DRY
25. Marathwada	ISOL	ISOL	DRY	DRY	DRY
26. Vidharbha	ISOL	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	ISOL	ISOL	ISOL	ISOL	ISOL
29. Telangana	ISOL	ISOL	ISOL	ISOL	ISOL
30. Rayalaseema	ISOL	ISOL	ISOL	ISOL	ISOL
31. Tamilnadu & Puduchery	SCT	ISOL	ISOL	ISOL	SCT
32. Coastal Karnataka	ISOL	ISOL	ISOL	ISOL	ISOL
33. North Interior Karnataka	ISOL	ISOL	ISOL	ISOL	DRY
34. South Interior Karnataka	SCT	ISOL	ISOL	SCT	SCT
35. Kerala	FWS	SCT	SCT	SCT	FWS
36. Lakshadweep	ISOL	DRY	DRY	DRY	ISOL

% Station Reporting Rainfall

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

Weather Warning during next 5 days

- **04 May (Day 1):** Thunderstorm accompanied with squall very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and West Bengal. Thunderstorm accompanied with gusty winds very likely at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, Bihar, Jharkhand, Sikkim, Odisha, northwest Madhya Pradesh, Telangana, Rayalaseema, north coastal Andhra Pradesh, Interior Tamilnadu and Kerala. Heavy rain very likely at isolated places over Tamilnadu and Kerala. Dust storm/Thunderstorm very likely at isolated places over Rajasthan.

- **05 May (Day 2):** Thunderstorm accompanied with squall very likely at isolated places over Uttarakhand, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim. Thunderstorm accompanied with gusty winds very likely at isolated places over Jammu & Kashmir, Himachal Pradesh, Punjab and Gangetic West Bengal. Heavy rain very likely at isolated places over Assam & Meghalaya and Tripura. Dust storm very likely at isolated places over Rajasthan.
- **06 May (Day 3):** Thunderstorm accompanied with squall and hail very likely at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Thunderstorm accompanied with squall very likely at isolated places over Sub-Himalayan West Bengal & Sikkim. Thunderstorm accompanied with gusty winds very likely at isolated places over north Coastal Andhra Pradesh, Punjab and West Uttar Pradesh. Heavy to very heavy rain very likely at isolated places over south Assam & Meghalaya; heavy rain very likely at isolated places over Tripura. Heat wave conditions likely at one or two pockets over Vidarbha.
- **07 May (Day 4):** Thunderstorm accompanied with squall and hail very likely at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Thunderstorm accompanied with squall very likely at isolated places over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, South Interior Karnataka and Tamilnadu. Thunderstorm accompanied with gusty winds very likely at isolated places over East Uttar Pradesh. Heavy rain very likely at isolated places over Assam & Meghalaya and Tripura. Dust storm/Thunderstorm very likely at isolated places over Uttar Pradesh and Rajasthan. Heat wave conditions likely at one or two pockets over Vidarbha.
- **08 May (Day 5):** Thunderstorm accompanied with squall likely at isolated places over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, South Interior Karnataka and Tamilnadu. Thunderstorm accompanied with gusty winds likely at isolated places over East Uttar Pradesh and Kerala. Heavy rain very likely at isolated places over Tamilnadu, South Interior Karnataka and Kerala. Dust storm/ Thunderstorm at isolated places over Uttar Pradesh and Rajasthan. Heat wave conditions likely at one or two pockets over Vidarbha.

Weather Outlook for subsequent 2 days from 9th to 11th May 2018

- Fairly widespread to widespread rain/thundershowers with isolated heavy falls likely over east & northeast India.
- Scattered to fairly widespread rain/thundershowers with isolated heavy rainfall likely over south peninsula.
- Isolated to scattered rain/thundershowers likely over Western Himalayan region and plains of northwest India.
- Dry weather likely over remaining parts of the country.

Salient Advisories

- As thunderstorm accompanied with squall and hail very likely at isolated places over **Jammu & Kashmir, Himachal Pradesh** and **Uttarakhand** on 6th and 7th May, it is advised to use hail net for orchard crops to protect from mechanical damage. Provide support to young fruit plants and vegetables and propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places.
- As thunderstorm accompanied with squall very likely at isolated places over **Uttarakhand** on 5th and 8th, over **Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh** on 7th and 8th, over **Jammu & Kashmir** and **Himachal Pradesh** on 8th May, over **West Bengal** on 4th and over **Sub-Himalayan West Bengal & Sikkim** on 5th to 7th May, thunderstorm accompanied with gusty winds very likely at isolated places over **Jammu & Kashmir, Himachal Pradesh** on 4th and 5th, over **Uttarakhand, Haryana, Chandigarh & Delhi** on 5th, over **Punjab** from 4th to 6th, over **West Uttar Pradesh** on 6th and over **East Uttar Pradesh** on 7th and 8th, over **Bihar, Jharkhand, Sikkim** and **Odisha** on 4th, over **Gangetic West Bengal** on 5th, over **Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura** on 4th and 5th May, duststorm/thunderstorm very likely at isolated places over **Rajasthan** on 4th, 5th, 7th and 8th, over **Uttar Pradesh** on 7th and 8th May; it is advised to provide support to young fruit plants, banana and vegetables and propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safer places.
- As rain/thundershowers is likely at most/many places over **Jammu & Kashmir** and **Himachal Pradesh** from

5th to 8th, at many places over **Uttarakhand** from 6th to 8th, over **Punjab** on 7th and 8th, over **Haryana, Chandigarh** and **Delhi** on 8th May, most/many places over **Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura** and **Sub-Himalayan West Bengal & Sikkim** during the period, at many places over **Arunachal Pradesh** from 5th to 7th May, over **Andaman & Nicobar Islands** on 4th May, over **Kerala** on 4th and 8th May, along with heavy to very heavy rain at isolated places over South Assam & Meghalaya on 6th, heavy rain very likely at isolated places over Assam & Meghalaya on 5th and 7th, over Tripura from 5th to 7th May, heavy rain very likely at isolated places over Tamilnadu and Kerala on 4th and 8th, over South Interior Karnataka on 8th May, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Avoid harvesting of matured crops and keep harvested produce at safer places.

- As thunderstorm accompanied with gusty winds very likely at isolated places over **North West Madhya Pradesh, Telangana, Rayalaseema** and **Interior Tamilnadu** on 4th, over **north coastal Andhra Pradesh** on 4th and 6th, over **Kerala** on 4th and 8th May, thunderstorm accompanied with squall very likely at isolated places over **South Interior Karnataka** and **Tamilnadu** on 7th and 8th May, provide support to banana, young fruit plants and vegetables to avoid lodging. Undertake propping in sugarcane.
- As heat wave conditions very likely in one or two pockets over **Vidarbha** on 6th, 7th and 8th May, apply light and frequent irrigation to summer crops, vegetables and orchards. Also apply mulch to conserve soil moisture. Spray 8 % Kaolin to orange orchards to minimize evapotranspiration.

Detailed Agromet Advisories

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

- **Realised Rainfall:** Rainfall occurred in Almora, Bageshwar, Chamoli, Pothogarh, Rudraprayag and Uttarkashi districts of Uttarakhand, in Azamgarh district of East Uttar Pradesh during the week .Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As thunderstorm accompanied with squall and hail very likely at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand on 6th and 7th, thunderstorm accompanied with squall very likely at isolated places over Uttarakhand on 5th and 8th, over Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh on 7th and 8th, over Jammu & Kashmir and Himachal Pradesh on 8th May, advised to use hail net for orchard crops to protect from mechanical damage. Provide support to young fruit plants and vegetables and propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places.
 - As thunderstorm accompanied with gusty winds very likely at isolated places over Jammu & Kashmir, Himachal Pradesh on 4th and 5th, over Uttarakhand, Haryana, Chandigarh & Delhi on 5th, over Punjab on 4th, 5th and 6th, over West Uttar Pradesh on 6th and over East Uttar Pradesh on 7th and 8th, duststorm/thunderstorm very likely at isolated places over Rajasthan on 4th, 5th, 7th and 8th, over Uttar Pradesh on 7th and 8th May, provide support to young fruit plants and vegetables and propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places.
 - As rain/thundershowers would occur at most/many places over Jammu & Kashmir and Himachal Pradesh from 5th to 8th, at many places over Uttarakhand from 6th to 8th, over Punjab on 7th and 8th, over Haryana, Chandigarh and Delhi on 8th May, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - **Jammu & Kashmir:**
 - Continue sowing of maize, okra, French bean, moong and mash. Complete transplanting of cucurbits and vegetables.
 - Continue nursery bed preparation for rice.
 - Undertake nursery sowing of vegetables in trenches and polyhouses in Cold Arid Zone. Continue sowing of cucurbit seeds in poly bags for early nursery raising inside polyhouses.

▪ **Uttarakhand:**

- Continue harvesting of matured wheat and pulses and planting of turmeric, ginger and arbi after current spells of rain. Postpone intercultural operations in spring sugarcane.
- Undertake transplanting of capsicum and brinjal in the polyhouse in mid and high hills.

▪ **Himachal Pradesh:**

- Continue harvesting of matured wheat and sowing of bhindi, arvi etc. after current spells of rain. Continue nursery preparation of summer vegetables, raising of seedlings of cucurbits in polythene bags in poly house. Continue transplanting of summer vegetables like tomato, capsicum, gourd, chilli etc. in the well prepared fields.
- Spray Mancozeb @ 600g/200 litres of water in apple orchards to control the apple scab diseases after current spells of rain.

▪ **Punjab, Haryana & Delhi:**

- In Punjab, continue sowing of Bt. cotton and desi cotton, transplanting of chilli. Continue harvesting of matured vegetables in clear weather.
- In Haryana, continue sowing of cotton. Farmers are advised to prepare the land and sowing of green gram, Lobia, moth and Pigeon pea. Undertake field preparation for rice nurseries.
- In Delhi, continue field preparation for sowing of pigeonpea and cotton. Continue harvesting of matured vegetables. Apply light irrigation in vegetables and standing crops.
- In Delhi, to control shoot and fruit borer in brinjal and tomato crops, infested fruits and shoots should be collected and buried inside the soil. If pest population is high, spray Spinosad 48 EC @ 1 ml/4 litres of water on a non rainy day.

▪ **Uttar Pradesh:**

- Undertake deep ploughing in vacant fields. Apply irrigation in vegetables. Undertake field preparation for rice nursery. Continue field preparation for sowing of pigeonpea and cotton. Continue intercultural operations in cucurbit crops and sugarcane. Continue harvesting of matured barley, wheat and vegetables.

▪ **Rajasthan:**

- Complete harvesting of matured wheat and barley and keep it at safer places. Apply irrigation in summer groundnut, vegetables, sugarcane and moong. Continue land preparation/sowing of cotton. Undertake picking up of matured vegetables and cucurbits.
- For control of stem and fruit borer in okra, spray Malathion 2 ml or Thioron 1 ml in one litre water.

• **Animal Husbandry**

- In Jammu & Kashmir, add calcium supplement in the diet of dairy animals and heifers especially fed rice straw these days to prevent calcium deficiency and intestinal blockage. Sheeps and goats need to be vaccinated against Sheep and Goat pox.
- In Punjab, keep the animals under sheds during noon time and provide fresh drinking water to save the animals from summer heat and stress.
- In Rajasthan, take care of domestic animals, keep them in shades during peak time and make arrangement for plenty of drinking water.

• **Apiculture:**

In Jammu & Kashmir, harvest honey from the bee colony. Migrate bee colonies to flora rich areas. Avoid antibiotics. For protection against ants, put the legs of apiary into water so that ants could not attack the apiary.

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

- **Realised Rainfall:** Rainfall occurred in South Andaman and Nicobar islands in Andaman and Nicobar Islands, all districts of Odisha except Bolangir, Boudh, Dhenkanal, Kalahandi, Kendrapada, Malkangiri, Nawapara, Nawarangapur, Rayagada and Sundargarh, in Araria, Bhagalpur, Purnea and Supaul districts of Bihar, Dhanbad, East Singhbhum and Sahebganj districts of Jharkhand, all districts of Sub-Himalayan West Bengal except Cooch Behar, Jalpaiguri and North Dinajpur, in Bankura, Burdwan, East Midnapore, Kolkata, North 24 Paraganas and Purulia districts of Gangetic West Bengal during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As thunderstorm accompanied with squall very likely at isolated places over West Bengal on 4th and over Sub-Himalayan West Bengal & Sikkim on 5th to 7th May, thunderstorm accompanied with gusty winds very likely at isolated places over Bihar, Jharkhand, Sikkim and over Odisha on 4th, over Gangetic West Bengal on 5th May, it is advised to provide support to young fruit plants, banana and vegetables and propping up in sugarcane to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places.
 - As rain/thundershowers very likely at most/many places over Sub-Himalayan West Bengal & Sikkim during the period and at many places over Andaman & Nicobar islands on 4th May, avoid irrigation, intercultural

operation and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.

▪ **Odisha:**

- Continue land preparation and sowing of summer pulses.
- Summer rice is at tillering to panicle initiation stage. Continue intercultural operations and top dressing of summer rice and planting of summer vegetables like cucurbits and lady's finger.
- Apply mulches to non paddy crops and fruit crops to maintain/conserves moisture in the soil.
- Continue harvesting of mustard and potato.
- Due to rise in temperature and dry soil condition, insects pests like white grubs may pose serious problems in groundnut. Monitor the crops and undertake plant protection methods if infestation is noticed.
- Increased temperature may favour the egg laying of stem borer in rice in the main field. To attract the butterflies, place 4 Pheromon Traps/acre, collect the adults and destroy them by burning them under soil or by burying.
- Increased difference between daily maximum and minimum temperature favours the infestation of blast in main field. Spray 1 g Beam/litre water. Apply mulches to non paddy crops and fruit crops to maintain high moisture status in the soil.

▪ **Bihar:**

- As mainly dry weather would prevail, apply irrigation at regular intervals around mango trees to prevent fruit drop and application of Acephate @ 0.5 gm mixed with Planofix @ 1.0 ml per 4 litres of water. Provide irrigation in standing maize, onion and vegetables crops as per requirement.
- Continue sowing of summer maize varieties such as Suwan, Deoki, Ganga 11, Shaktiman-1, 2, 3, 4. Continue sowing of green gram and black gram.
- Undertake sowing of vegetables like lady's finger, pumpkin, cucumber, sponge gourd *etc.*

▪ **Jharkhand:**

- Continue intercultural operations in summer moong. Maintain optimum water level in transplanted rice fields. Undertake planting of ginger and elephant foot yam.
- Summer rice crop is at panicle emergence to grain formation stage in South Eastern Plateau Zone and Gundhi Bug infestation starts at this stage but more likely to be prone at milking stage hence, dusting of Quinalphos 1.5 per cent dust @ 10 kg per acre during evening time is recommended or establish pheromone trap @ 3-4 nos./acre. Prevailing temperature favours Blast disease occurrence hence, spraying of Tricyclazole @ 6 g per 10 liter of water is recommended.

▪ **West Bengal:**

- In the Sub-Himalayan West Bengal, carry out land preparation/planting of ginger and turmeric. Continue transplanting of round chilli in the raised beds and provide proper drainage. Undertake land preparation for soybean cultivation. Provide mulching to cucurbit crops.
- In the Gangetic West Bengal, carry out harvesting of mature tomato, onion and garlic crops in clear weather. Continue harvesting of mature sunflower heads. Carry out harvesting of matured *Boro* rice. Provide one or two light irrigations to groundnut crop if required.
- In Gangetic West Bengal, spray any fungicide on mango plants to prevent fruit rot at maturity stage. To prevent shedding of new fruits in mango orchards due to high temperature, apply irrigation and spray NAA @ 5ml/10 litres of water.
- In Sub-Himalayan West Bengal, spray Tricyclazole @ 0.75g/litre of water if brown colour spot or blast spot appears on the leaves of *Boro* paddy crop after current spells of rain. If aphid or white fly infestation is observed in green gram at pre-flowering stage, spray Imidacloprid @ 5ml per litre of water after current spells of rain.

▪ **Andaman & Nicobar Islands:**

- Undertake raising of vegetable seedlings (Brinjal and Chilli) in trays in protected areas, for planting in high lands. Clean the crown portion of coconut and garden before onset of monsoon.

• **Animal Husbandry**

- In Jharkhand, Presently, maximum day temperature ranged between 34 and 36 degree Celsius may cause death of fowl due to heat stroke, hence, special care should be taken as follows:
 - Avoid overcrowding. Provide fresh and cold water for drinking purpose.
 - Shelter house roof should be painted white in colour as well as rice straw should be kept on the roof for cooling and temperature regulation purpose. Sprinkle water on hanging khus sheets.
 - Watery food should be supplied after midday and be careful that it should be finished on the same day. To minimize the affect of heat it is advisable to supplement vitamin C and Dextrose with water. If signs and symptoms of heat stroke appears in fowl, take it out carefully, immediately and slowly, submerge it in water and place it in shade for drying.

- **Fisheries**
- In Odisha, fish farmers, in case have stocked fingerlings in the pond for fish culture, they should monitor the quality and level of water, so also temperature. In case of water temperature goes above 30^o C or water level goes below 1 m. depth, farmers are advised to go for early harvest and discontinue fish seed production and culture activity.

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

- **Realised Rainfall:** Rainfall occurred in Changlang, Tawang, Tirap, Upper Siang, West Kameng and West Siang districts of Arunachal Pradesh, Bongaigaon, Cachar, Dhubri, Dibrugarh, Goalpara, Hailakandi, Karimganj, Kokrajhar, N. C. Hills, Nagaon, Tinsukia and Udalgiri districts of Assam, all districts of Meghalaya except West Garo Hills, in Aizawl and Serchip districts of Mizoram, Imphal East, Imphal West, Senapati and Thoubal districts of Manipur, Kohima, Mon and Phek districts of Nagaland and in all districts of Tripura during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers would occur at most/many places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during the period, at many places over Arunachal Pradesh from 5th to 7th May, along with heavy to very heavy rain at isolated places over South Assam & Meghalaya on 6th, heavy rain very likely at isolated places over Assam & Meghalaya on 5th and 7th, over Tripura from 5th to 7th May, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - As thunderstorm accompanied with squall very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 4th and 5th May, provide support to banana, young fruit plants and vegetables to prevent the crops from lodging due to strong winds. Keep harvested produce at safe places.
 - **Arunachal Pradesh:**
 - Continue transplanting of seedlings of summer vegetables to main field from nursery. Continue transplanting Boro rice seedlings. Continue sowing of leguminous crops like cowpea, French bean, soybean, etc. at 2-3 rows across the slope of Jhum field at desirable intervals or ratios with rice to prevent soil erosion and conserve moisture and fertility. Undertake sowing of large cardamom in primary nursery bed. Continue harvesting of potato, cabbage and cauliflower in clear weather.
 - Spray Triazophos 40EC @ 4 ml/litre against stem borer in rice nursery as well as in main field.
 - **Assam:**
 - Continue land preparation and sowing of Bao rice varieties like Kekua Bao, Negheri Bao, Maguri, Panikekua, Panindra, Padmanath, etc., planting of banana, cucumber and colocasia and land preparation for sowing of Sali rice after the forecasted spells of heavy rain.
 - Undertake transplanting of tall traditional varieties of Normal Ahu rice. Continue direct sowing of vegetables like French bean, amaranthus, vegetable lobia, lady finger, bottle gourd, cucumber, ridge gourd and summer radish. Complete the planting of HYV ginger (Nadia, Karkai, Maran, Jorhat, chaina etc.) and turmeric (Shillong type, CL-24, PTS-38, PCT-13, VK-145, etc.). Continue sowing of maize varieties like HYV (Ganga-5; High Starch etc) or composite maize (NLD, Dhawal, Naviot etc). Continue sowing of Varieties of Ridge gourd like Pusa Nasdar, AAUJ-1, AAUJ-2, AAUC-3 and sponge gourd like Pusa Chikni. Continue planting of banana varieties like Jahaji (dwarf variety) and Chenichampa, Malbhog, Barjahaji (medium tall variety). Undertake sowing of pumpkin and cow pea.
 - To control the attack thrips in chilli crop, spray Rogor or Dimethoate @ 1.5 ml per litre of water. Gandhi bug attack may be seen in Boro rice at milky stage. For effective control of Gandhi bug, apply 5% Malathoin dust @ 20 kg per ha of land. Spray Carbendazim @ 1.0 gram per litre for incidences of powdery mildew disease in cucurbitaceous crops and late pea. Undertake plant protection methods after current spells of rain.
 - **Meghalaya:**
 - Continue sowing of cucurbits like cucumber, pumpkin, bottle gourd, ash gourd, squash, French bean and cowpea. Continue land preparation and sowing of maize varieties Vijay Composite, DA 61A, RCM 75, 76, Vivek Hybrid 25, Vivek QPM-1, etc. Continue land preparation and sowing of French bean and cowpea. Continue transplanting of chilli and brinjal crops. Continue harvesting tomato and capsicum.
 - **Manipur:**
 - Continue land preparation for sowing of colocasia, soybean, groundnut, kharif maize, black gram and red gram. Maintain optimum water depth of 5-8cm in the rice field. Drain out excess water that is accumulated in paddy field due to rain. Undertake sowing of bhindi. Undertake harvesting of mature onion and tomato in clear weather.
 - **Tripura:**
 - Maintain 5 cm of water in the Boro rice field. Avoid stagnation of water in jhum rice, maize, cowpea, urad and green gram fields. Apply irrigation to cowpea crop at flowering stage.
 - In Tripura, weather is conducive for fruit & shoot borer in summer brinjal and tomato. To manage the attack, spray Cypermethrin @ 1.5 ml or Flubendiamide @ 0.5 ml per liter of water after current spells of rain.

- **Nagaland:**

- Continue sowing of summer vegetables, ginger and turmeric.

- **Animal Husbandry**

- Give 'Imferon' injection after consulting local veterinary doctor to control anemia in 4 to 14 days old piglets. Vaccinate pigs against FMD & swine fever and cattle/sheep/goat against FMD, Hemorrhagic Septicemia, Black Quarter. Vaccinate poultry birds against coccidiosis and Ranikhet diseases. Undertake de-worming calves in consultation with veterinary practitioner.

- **Fishery**

- Carry out release of new batches of fishes in ponds. Select healthy, diseases free breeds of fishes from good sources after consulting with fishery officials. Before releasing, the fingerlings should be treated with Potassium permanganate (@ 3-5%). Raise the height of embankment of the ponds and apply nets on all sides. This will prevent the fishes to escape from the ponds during flood.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Weather remained dry over the region during the week.

- **Advisories:**

- **Maharashtra:**

- As heat wave conditions very likely in one or two pockets over Vidarbha on 6th, 7th and 8th May, apply light and frequent irrigation to the standing crops to cope up with the excess evaporative demand due to heat wave conditions, undertake mulching with straw/polythene to conserve soil moisture.

- In South Konkan, undertake nursery bed preparation for *kharif* rice in harvested fields. Complete harvesting of matured groundnut. Dry harvested pods in sun for 3 to 4 days. Continue harvesting of cashewnuts, mangoes and pineapple. Dry the cashewnuts in sun and then store them. Complete harvesting of rice. Undertake land preparation for *kharif* season in fallow lands. In North Konkan, continue harvesting of mangoes. Keep the harvested fruits in shade to prevent spongy tissue disease and from heat.

- In Madhya Maharashtra, apply irrigation to summer crops, orchards and vegetables. Apply irrigation during evening hours. Also apply mulch to preserve soil moisture. Continue preparatory tillage operations like ploughing, harrowing, land leveling and bunding for *kharif* crops in fallow lands. After completion of pruning in grape vine, apply Bodeaux mixture 1%.

- In Marathwada, continue harvesting of matured groundnut. Keep the harvested produce in safer place. Apply irrigation to sugarcane (drip irrigation method), vegetables and orchards during early morning or evening hours. Prepare shade to protect newly planted mango plants from sunlight. Give support with the help of stick to newly planted mango plants. Harvest matured mango fruits during early in the morning or evening.

- In Vidarbha, apply light and frequent irrigation to summer crops, vegetables and orchards. Also apply mulch to conserve soil moisture. Spray 8 % Kaolin to orange orchards to minimize evapotranspiration.

- In Madhya Mahatashtra, for control of fruit borer in tomato and okra, gather all the infested fruits and bury them in soil. Also spray Deltamethrine 2.8 EC @ 8 ml or Quinolphos 25% EC @ 20 ml per 10 litre of water.

- **Gujarat:**

- In North Gujarat, apply irrigation in groundnut (pegging stage), pearl millet (flag leaf/ear head stage), green gram, cowpea (flower initiation stage), vegetable and fruit crops. Do not carry out intercultural operations at pegging stage in groundnut.

- In South Gujarat, undertake nursery sowing of rice (NAUR-1, GNR-2 (Costal area) GNR-3, GNR-4, GNR-5, GNR-6 (Long duration), Jaya, Gurjari, GR-5, 7, 8, 9, IR-28, Purna and GAR-13). Maintain water level in summer rice field. Spread dry leaves of sugarcane in between two rows of sugarcane to control water evaporation from sugarcane fields. Undertake deep ploughing in harvested crop fields.

- In Saurashtra & Kutch, apply light and frequent irrigation by drip system to vegetable, groundnut crops and mango orchards. Undertake harvesting of sesame in time in Saurashtra before seed shattering. Continue weeding in vegetable crops.

- **Animal Husbandry**

- In Gujarat, put curtains on south-west side of poultry house and sprinkle water on curtains during noon time. Keep animals under shade during noon hours and provide clean drinking water.

CENTRAL INDIA [M.P., CHHATTISGARH]

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

- **Advisories:**

- **Madhya Pradesh:**

- As thunderstorm accompanied with gusty winds very likely at isolated places over North West Madhya Pradesh on 4th May, provide support to young fruit plants and vegetables and propping up in sugarcane to

- prevent the crops from lodging due to strong winds. Keep harvested produce at safe places.
- In West Madhya Pradesh, apply irrigation in vegetables, green gram, black gram. Continue seed bed preparation for sowing of *kharif* onion. Continue transplanting of young seedlings of tomato, chilli and cole crops. Continue intercultural operations in vegetables.
- In East Madhya Pradesh, apply irrigation in maize, groundnut, sugarcane, summer moong, urad and cucurbits. Continue harvesting of matured vegetables.
- For control of sucking pest in moong & urad spray Thiomithaxim @ 0.3 gm/litre of water.
- **Chhattisgarh:**
- Apply irrigation in summer moong, rice, sugarcane, vegetables and fruit (mango, Litchi) crops as per soil moisture condition.
- To conserve soil moisture farmers are advised for deep summer ploughing in their vacant fields. Keep inputs ready for *kharif* rice. Continue harvesting of matured vegetables. Continue planting of papaya seedling in polybags.
- **Animal Husbandry**
- In Madhya Pradesh, provide mineral mixture and fresh and clean water to birds. Vaccinate the poultry birds to prevent Ranikhet disease. Cattle should be kept in shade and provide clean and fresh water two times a day.
- In Chhattisgarh, poultry farmers are advised to cover their poultry house with mat and keep it wet so that inner temperature may be kept normal. Provide plenty of drinking water to cattle. Buffaloes should be kept in water-filled pond for at least half an hour every day.

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

- **Realised Rainfall:** Rainfall occurred in Idukki, Kozhikode, Malappuram, Palakkad, Pathanamthitta and Thrissur districts of Kerala, East Godavari, Srikakulam, Vishakhapattanam and Vizianagaram districts of Andhra Pradesh, Erode and Nilgiris districts of Tamilnadu, Bangalore Rural, Chamrajanagar, Mysuru, districts of Karnataka during the week. Weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As thunderstorm accompanied with gusty winds very likely at isolated places over north coastal Andhra Pradesh on 4th and 6th, over Telangana, Rayalaseema, Interior Tamilnadu on 4th, over Kerala on 4th and 8th May, thunderstorm accompanied with squall very likely at isolated places over South Interior Karnataka and Tamilnadu on 7th and 8th May, provide support to banana, young fruit plants and vegetables to avoid lodging. Undertake propping in sugarcane.
 - As rain/thundershowers would occur at many places over Kerala on 4th and 8th May, along with heavy rain very likely at isolated places over Tamilnadu and Kerala on 4th and 8th, over South Interior Karnataka on 8th May, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - **Kerala:**
 - Carry out land preparation for the next paddy crop. Continue planting of coconut seedlings and 3-4 months old banana suckers (varieties like Robusta, Poovan, Njalipoovan, Palayankodan, etc). Undertake planting of three budded setts of sugarcane in trenches at a spacing of 90 cm between rows. Undertake planting of vegetables like brinjal, chilli, bhindi, bitter gourd, Amaranthus, etc. Apply green leaf mulching in the ginger field. Provide shade to pepper and vegetable crops. Do not start tapping the rubber plants until young leaves get mature.
 - Spray 2 g Pseudomonas in one litre of water at weekly intervals as a prophylactic measure to control blast and sheath rot diseases in rice at panicle in initiation stage. For rice bug at milky stage in the paddy crop, apply neem based pesticides @ 3 ml per one liter of water either before 9 am or after 3 pm. For severe infestation of sucking pests like mites, jassids and white fly in Chilli and Brinjal, spray Thiamethoxam 25 WG @ 0.25g or Diafenthuron 50 WP @ 1.2 g/litre of water. To control downy mildew in cucurbits, spray combination fungicide Cymoxanil + Mancozeb @ 2g/litre of water. Due to increase in temperature, there is a chance of spodopta disease in banana. In case of severe spodopta attack, spray Fame 2 ml per 10 liters of water. Undertake plant protection methods after current spells of rain.
 - **Andhra Pradesh:**
 - Maintain 5cm water from grain hardening to maturity stage in paddy crop. Undertake land preparation for pre-kharif crops like sesamum, bajra, mesta, etc. Carry out summer ploughing for rain-fed sugarcane.
 - For the control of stem borer in paddy, spray Chlorpyrifos @ 2.5ml (or) Acephate 1.5 g (or) Cartap Hydrochloride 2.0g per litre of water. For the control of fruit fly in mango orchards, farmers are advised to hang plastic plates containing 2ml/litre of Methyl Uginol mixed with 3.0g of Carbofuran granules. For control of powdery mildew and fruit rot in chilli crop., spray Azoxystrobin 1 ml or Karathane 1ml+Mancozeb 2 g per litre of water. Spray Monocrotophos @ 320 ml or Dimethoate @ 400 ml/acre for sucking pests in green gram, black gram, groundnut and sesame crops. To control thrips in summer groundnut, spray Monocrotophos @ 1.6 ml or Imidachloprid @ 0.3 ml per litre of water.

- **Telangana:**
 - Apply light irrigation to vegetable crops. Provide mulching in banana plantation.
 - Prevailing dry weather conditions are favorable for the incidence of fruit fly in mango. To trap the flies in the container, hang the plastic containers with mixture of Methyl Eugenol @ 2 ml + Carbofuran 3G @ 3g per litre of water in the orchard. To control sucking pests in vegetables, spray Dimethoate @ 2 ml or Acephate @ 1.5 g per litre of water. Spray Dimethoate @ 2ml/litre of water to control the vectors like Aphids and whiteflies in papaya.
- **Tamil Nadu:**
 - Undertake harvesting of rice when about 80% panicles have 80 % ripened spikelets and their upper portion is straw coloured. Carry out weeding and earthing up @ 45 DAS in rice fallow cotton. Provide staking to five months or older banana and sugarcane plants. Irrigate coconut and banana plantations according to the soil moisture. Undertake sowing of cumbu under irrigated dry conditions. Carry out land preparation for planting turmeric. Carry out grafting and cutting of horticultural crops. Provide proper drainage facilities to prevent rain water stagnation in agricultural and horticultural crop fields.
 - To control the incidence of sucking pest in the vegetable crops, spray 5 % Neem seed kernel extract on a non rainy day.
- **Karnataka:**
 - In South Interior Karnataka, continue land preparation and keep inputs ready for sowing of cowpea (TVX-944, KBC-1), sesamum (Navile-1, T-7), green gram (PS-16, PDM-84,178), black gram (Karagao-3, T-9, Rashmi (LBG-625)) and ragi (Indof-9, GPU-48) crops and undertake pre-monsoon sowing where sufficient rain is received.
 - In North Interior Karnataka, undertake deep ploughing in harvested fields and earthing up in sugarcane crop. Apply irrigation in alternate rows of sugarcane and put dried leaves of sugarcane as mulch in non-irrigated rows. Continue harvesting of fully matured fruits of sapota, chikku and matured chili.
 - In Coastal Karnataka, continue harvesting of matured groundnut. For control of hoppers in mango, spray Melathion @ 2 ml/liter of water or Monocrotophos @ 1.25 ml/liter of water.
- **Animal Husbandry**
 - In Telangana, prevailing weather conditions are congenial for the occurrence of Sheep pox in sheep and goat, Foot and mouth disease in cattle and Buffaloes. To prevent the diseases, vaccinate the animals. In poultry, prevailing weather conditions are congenial for the occurrence of Ranikhet disease in poultry. To prevent the diseases, vaccinate the birds. To protect the poultry birds from high temperature, arrange fans and foggers in sheds, cover the sheds with paddy straw and arrange sprinklers. Feed with wet mash to increase the feed intake and provide cool water for drinking.
 - In Karnataka, maintain optimum room temperature in silkworm and poultry rearing house. Use silage, hay and crop residues for cattle feed when shortage of green fodder. Leave the buffaloes in ponds during afternoon hours or sprinkle the cold water 2-3 times a day on the body of the animal to overcome the heat.

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