



National Agromet Advisory Service Bulletin

Friday 6th October 2017
(For the period 6th to 11th October 2017)



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India Meteorological Department

Weblink For

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

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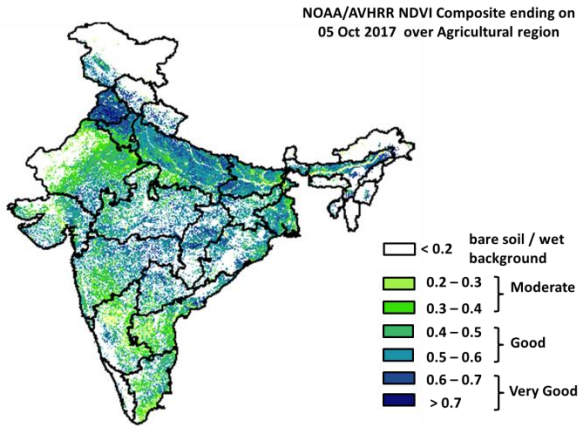
Spatial distribution of weather parameters for the week ending 04.10.2017

<p align="center">Mean Maximum Temperature (°C) for the week ending 04.10.2017</p>	<p align="center">Mean Minimum Temperature (°C) for the week ending 04.10.2017</p>
<p align="center">Mean Diurnal Temperature Variation (°C) for the week ending 04.10.2017</p>	<p align="center">Mean Maximum Relative Humidity (%) for the week ending 04.10.2017</p>
<p align="center">Mean Minimum Relative Humidity (%) for the week ending 04.10.2017</p>	<p align="center">Mean Cloud Cover (okta) for the week ending 04.10.2017</p>
<p align="center">Mean Wind Speed (km/hr) for the week ending 04.10.2017</p>	

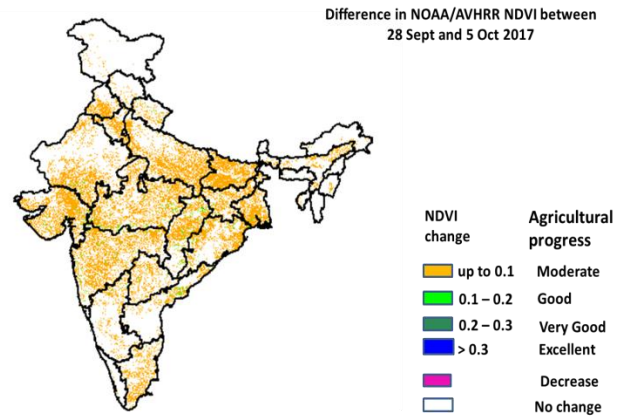
<p align="center">Growing Degree Days for the week ending 04.10.2017</p>	<p align="center">Growing Degree Days for the season ending 04.10.2017</p>

* Base temperature for *Kharif* Season is taken as 10⁰ C

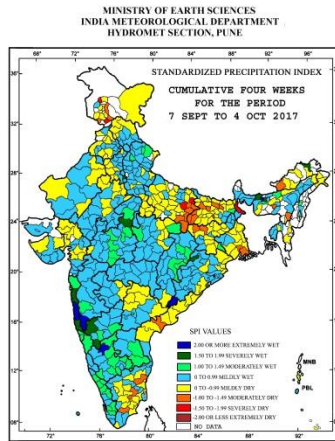
NOAA/AVHRR NDVI composite ending on 5th October 2017 over Agricultural regions of India



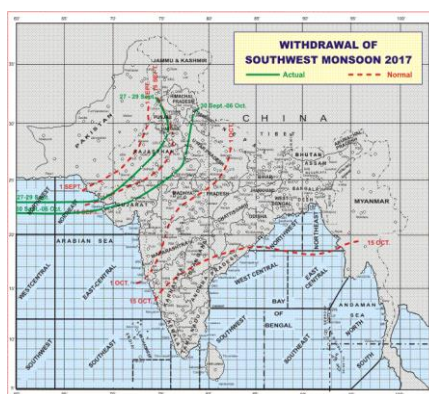
Difference in NOAA/AVHRR NDVI between 28th September and 5th October 2017



**Standardised Precipitation Index
Cumulative 4 weeks for the period 7th September 2017 to 4th October 2017**



Withdrawal of South West Monsoon



- The monsoon withdrawal line continues to pass through Uttarkashi, Agra, Shivpur Kalyan, Gandhi Nagar, Dwarka, Lat. 22.0°N/Long. 65.0°E and Lat. 22.0°N/Long. 60.0°E.

Weather Forecast for next 5 days valid upto 0830 hours of 11th October 2017

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- No significant change in maximum and minimum temperatures over most parts of the country during next 3 days.

5 Day Rainfall Forecast (Mid-day) 6th October 2017

Met-Sub-Division	06-Oct Today	07Oct Sat	08Oct Sun	09Oct Mon	10Oct Tue
1. Andaman & Nicobar Islands	FWS	FWS	FWS	FWS	FWS
2. Arunachal Pradesh	ISOL	ISOL	SCT	SCT	ISOL
3. Assam & Meghalaya	SCT	FWS	FWS	FWS	SCT
4. N. M. M. & T.	SCT	FWS	FWS	FWS	SCT
5. S.H. West Bengal & Sikkim	ISOL	ISOL	SCT	FWS	FWS
6. Gangetic West Bengal	SCT	FWS	FWS	FWS	SCT
7. Odisha	FWS	WS	WS	FWS	SCT
8. Jharkhand	SCT	FWS	FWS	FWS	FWS
9. Bihar	ISOL	ISOL	SCT	SCT	FWS
10. East Uttar Pradesh	ISOL	ISOL	ISOL	ISOL	ISOL
11. West Uttar Pradesh	DRY	DRY	DRY	DRY	DRY
12. Uttarakhand	ISOL	ISOL	ISOL	ISOL	ISOL
13. Haryana, Chd & Delhi	DRY	DRY	DRY	DRY	DRY
14. Punjab	DRY	DRY	DRY	DRY	DRY
15. Himachal Pradesh	DRY	DRY	DRY	DRY	DRY
16. Jammu & Kashmir	ISOL	ISOL	ISOL	ISOL	ISOL
17. West Rajsthan	DRY	DRY	DRY	DRY	DRY
18. East Rajasthan	DRY	DRY	DRY	DRY	DRY
19. West Madhya Pradesh	ISOL	ISOL	ISOL	ISOL	SCT
20. East Madhya Pradesh	SCT	SCT	SCT	SCT	SCT
21. Gujarat Region	DRY	ISOL	ISOL	ISOL	ISOL
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	ISOL	SCT	FWS	FWS	FWS
24. Madhya Maharashtra	ISOL	WS	WS	FWS	SCT
25. Marathwada	ISOL	WS	WS	FWS	SCT
26. Vidarbha	SCT	FWS	WS	FWS	SCT
27. Chhattisgarh	SCT	SCT	WS	WS	FWS
28. Coastal Andhra Pradesh	FWS	FWS	FWS	SCT	SCT
29. Telangana	WS	WS	FWS	FWS	FWS
30. Rayalaseema	FWS	SCT	SCT	SCT	FWS
31. Tamilnadu & Puducherry	FWS	SCT	SCT	SCT	FWS
32. Coastal Karnataka	FWS	SCT	SCT	SCT	SCT
33. North Interior Karnataka	FWS	WS	FWS	FWS	FWS
34. South Interior Karnataka	WS	FWS	SCT	SCT	FWS
35. Kerala	FWS	SCT	SCT	SCT	SCT
36. Lakshadweep	WS	FWS	SCT	SCT	SCT

% 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

- **06 October (Day 1):** Heavy rain very likely at isolated places over Odisha, Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamilnadu, South Interior Karnataka, Kerala and Lakshadweep. Thunderstorm accompanied with lightning very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Jharkhand, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamil Nadu & Pudducherry, North Interior Karnataka, South Interior Karnataka and Kerala.
- **07 October (Day 2):** Heavy rain very likely at isolated places over Chhattisgarh, Odisha, Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamilnadu and Interior Karnataka. Thunderstorm accompanied with lightning very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh,

Telangana, Rayalaseema, Tamil Nadu & Pudducherry, Interior Karnataka and Kerala.

- **08 October (Day 3):** Heavy rain likely at isolated places over Odisha, Gangetic West Bengal, East Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Chhattisgarh, Vidarbha, Coastal Andhra Pradesh, Telangana and North Interior Karnataka.
- **09 October (Day 4):** Heavy to very heavy rain likely at isolated places over Konkan & Goa; heavy at isolated places over Chhattisgarh, Jharkhand, East Madhya Pradesh, Madhya Maharashtra and Vidarbha.
- **10 October (Day 5):** Heavy rain likely at isolated places over Jharkhand, Bihar, Chhattisgarh and Tamil Nadu & Pudducherry.

Weather Outlook for subsequent 2 days from 11th to 13th October 2017

- A fresh Western Disturbance is likely to affect the Western Himalayan Region.
- Rain at most places likely over eastern parts of Northern plains
- Rain at many places likely over parts of Peninsula, Andaman & Nicobar Islands and east & northeast India.
- Rain at a few/isolated places likely over parts of Central India and Western Himalayan region.
- Weather is likely to be dry over the remaining parts of the country.

Salient Advisories

- As per the forecast and weather warning given above, the regions likely to receive rainfall at most/many places and heavy rainfall, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields to avoid water stagnation.
- In **Konkan**, postpone harvesting of early matured rice varieties. Keep the already harvested produce in safer place.
- In **Tamil Nadu**, in the Cauvery Delta Zone, continue nursery preparation of thaladi rice crop and undertake harvesting of kuruvai rice. In the South Zone, continue sowing of sorghum, cotton and maize.
- In the Northern Zone of **Kerala**, undertake nursery preparation for mundakan rice, harvest all matured crops after current spells of rain and keep harvested produce at safer places.
- In **Haryana**, as dry weather is forecasted during the period, farmers are advised to apply protective irrigation in standing crops wherever necessary. Avoid moisture stress during flowering and boll formation stages in cotton.
- In **Jammu & Kashmir**, as mainly dry weather would prevail during the period, undertake harvesting of matured rice and maize. Continue harvesting of matured pulses and maize in Central Plain Zone of Uttar Pradesh. In **Gujarat**, continue harvesting of sesame, pearl millet, green gram and cowpea.
- In **Jharkhand, Madhya Pradesh, Chhattisgarh and Jammu & Kashmir** continue land preparation and sowing of toria. In **Haryana and Delhi**, undertake sowing of mustard.
- As thunderstorm accompanied with lightning very likely at isolated places over **Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamil Nadu & Pudducherry, North Interior Karnataka, South Interior Karnataka and Kerala** on 6th and 7th, over **Gangetic West Bengal and Jharkhand** on 6th October, keep cattle indoor.

Detailed Zonewise Agromet Advisories

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

- **Realised Rainfall:** Rainfall occurred in all districts of Kerala, all districts of Coastal Karnataka, all districts of North Interior Karnataka except Bidar, in all districts of South Interior Karnataka except Mysuru, in Chennai, Kancheepuram, Krishnagiri, Salem, Thiruvavur, Tiruvallur, Tiruvannamalai, Vellore and Villupuram districts of Tamil Nadu, all districts of Coastal Andhra Pradesh except West Godavari, all districts of Rayalaseema, all districts of Telangana except Adilabad and Nizamabad during the week and weather remained mainly dry over rest of the region.

• **Advisories:**

- As rainfall is very likely at most/many places over North Interior Karnataka, Telangana during the period, over South Interior Karnataka on 6th and 7th, at many places over Coastal Karnataka and Kerala on 6th, over Coastal Andhra Pradesh from 6th to 8th, over Rayalaseema and Tamil Nadu on 6th and 10th October, along with heavy rain at isolated places over Coastal Andhra Pradesh and Telangana from 6th to 8th, over Rayalaseema and Tamil Nadu on 6th and 7th, over Kerala and South Interior Karnataka on 6th, over Interior Karnataka on 7th, over North Interior Karnataka on 8th, over Tamilnadu & Puducherry on 10th October, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- As thunderstorm accompanied with lightning very likely at isolated places over Coastal Andhra Pradesh, Telangana, Rayalaseema, Tamil Nadu & Pudducherry, North Interior Karnataka, South Interior Karnataka and Kerala on 6th and 7th October, keep cattle indoor.
- **Kerala:**
 - In the Southern Zone, continue tapping of rubber, planting of Nendran bananas and sowing of mundakan rice in Thiruvananthapuram and Kollam districts. Undertake planting of bananas in Pathanamthitta district.
 - In the Central Zone, undertake land preparation for planting of cool season vegetables.
 - In the Problem Area Zone, moderate heavy rain is expected. Ensure proper drainage in coconut, nutmeg and pepper fields and undertake harvesting of *Nendran* bananas.
 - In the Northern Zone, undertake nursery preparation for *Mundakan* rice, harvest all matured crops after current spells of rain and keep harvested produce at safer places and continue planting of vegetables.
 - In the Problem Area Zone, fungal diseases like brown spot, blast and sheath blight may occur on rice. Spray Trifloxystrobin @ 25% + Tebuconazole 50% @ 0.4 g/litre of water. Keep the field and bunds free of weeds and grasses to avoid incidence of rice bug. When bug is observed in large numbers, apply Malathion @ 2ml/litre of water after current spells of rain.
 - In the Central Zone, there is a chance for sheath blight disease in rice due to rains. Apply Pseudomonas or @ 20 gram/litre of water and Hexaconazole @ 2 ml/litre of water to prevent the disease after current spells of rain.
- **Karnataka:**
 - In North Transition Zone, undertake sowing of rabi sorghum (DSV-4, M 35-1 Muguthi, CSV-29R and SPV-2217), safflower (A-1 and A-2), chickpea (Annigeri-1, BG-1105, BGD-103, JG-11 and BGS-964) and wheat (rainfed: DWR-162, DWR-137, irrigated: DWR-162, US-428, UAS-304) in October under favorable conditions.
 - In Northeast Dry Zone, utilising the realised rainfall, undertake sowing of *rabi* sorghum, wheat, Bengal gram (JG - 11, Annegeri -1, ICCV-10), safflower, maize and sunflower.
 - In North East Transition Zone, undertake new plantation of sugarcane (variety Co-86032) crop. Prepare the seeds (seed hardening for drought resistance and uniform germination) for sowing of chick pea and sorghum.
 - In coastal Zone, arrange for proper drainage channels in plantation crops.
 - In Eastern Dry Zone, undertake land preparation for sowing of *rabi* crops.
 - In Hill Zone, to reduce the square/flower bud/flower drop in cotton, spray Planofix @ 0.25 ml/litres of water.
 - In Southern Dry Zone and Northeast Dry Zone, continue fresh plantation of fruit trees, teak, neem, tamarind, acacia *etc.*
 - In Central Dry Zone, continue sowing of cotton under irrigated condition.
 - In Southern Transition Zone, improve drainage in ill drained arecanut gardens and ginger, turmeric fields.
 - In Hill Zone, as a precautionary measure, for the control of Katta Roga in black pepper, spray 1% Bordeaux mixture solution and pour 5 liters of 0.2 % Copper Oxychloride solution to the root of the vine in the soil after current spells of rain.
 - In Central Dry Zone, due to cloudy weather and rainfall, there is possibility of incidence of purple blotch in onion, to control spray Chlorothalanin or Mancozeb @ 2 gram per liter with adhesive gum to the spraying mixture after current spells of rain. Wherever shoot fly damage is noticed in maize crop, remove the affected plants completely and apply Carbofuran granules in to the whorls @ 5 kg /acre.
 - In Coastal Zone, there are chances of leaf roller disease in rice, apply Quinolphos 25 EC @ 2ml/litre or Indox Carb 14.5 EC @ 0.3ml/litre of water after current spells of rain.
 - In Southern Dry Zone, due to cloudy weather there are chances of blast infection in paddy and ragi nursery. To manage the blast infection in nursery, spray Bevistin @ 1gm/litre or Saaf @ 2gm/litre of water after current spells of rain.
 - In Southern Transition Zone, for control of brown spot disease in rice, spray Mancozeb @ 2 g/litre or Carbondizim @ 1g/litre of water after current spells of rain.
- **Andhra Pradesh:**
 - In the Krishna Godavari Zone, continue land preparation for sowing of blackgram: LBG-752, LBG-20, T-9, LBG-623, PU-31, LB-402, LBG-709 and LBG-787.
 - In the Scarce Rainfall Zone, procure seeds and keep inputs ready for sowing of Bengal gram in black soil areas after seed treatment with Carbendazim @ 2.5g/kg. Undertake harvesting of onion, foxtail millet, green gram and black gram after current spells of rain. Continue sowing of jowar.

- In Chittoor and Kadapa districts of the Southern Zone, to control black spot, boll rot and leaf spot diseases in rainfed cotton, spray Copper oxychloride @ 3g + Streptocyclin @ 0.1 g./litre of water. Spray Potassium nitrate @ 20 g./litre of water after current spells of rain and repeat after 15 days interval.
- In the Scarce Rainfall Zone, prevailing cloudy, humid weather is congenial for spread of leaf spot diseases in chillies. Spray Copper Oxychloride @ 3g/litre of water along with Streptocyclin @ 1g/10 litres of water for control after current spells of rain.
- **Telangana:**
- In North Telangana Zone, undertake harvesting of soybean after current spells of rain and keep harvested produce at safer places and continue sowing of jowar(Magi Jower).
- In South Telangana Zone, prevailing rainy, humid and cloudy weather is congenial for increase in incidence of leaf blast, neck blast, spots on spikelet and bacterial leaf spot diseases in rice. To control, leaf blast/neck blast, reduce the dosage of nitrogen fertilizers. Add 15-20 ka of potassium fertilizers/acre along with nitrogen and apply at panicle initiation stage (50- 60 days after transplanting). Spray Isoprothiolane @ 0.5 ml/litre of water. To control bacterial leaf bight, spray Agrimycin @ 4.0 g/10 litres of water twice at 5-7 days interval. Prevailing rainy, cloudy, humid weather and dew fall during morning hours will flare up incidence of spots on rice spikelets. To control, spray Propiconazole @ 1.0 ml/litre of water at booting and flowering stages after current spells of rain.
- **Tamil Nadu:**
- In the Cauvery Delta Zone, continue nursery field preparation of thaladi rice crop and harvesting of kuruvai rice.
- In the Western Zone, provide sufficient drainage for recently sown crops. Apply weedicide to rainfed maize, rainfed cotton and pulses and undertake nipping to arrest the vegetative growth of irrigated Combodia cotton at 15th node in below 150 days old crop and at 20th node in above 150 days old. Due to continuous rainfall, 45 days old irrigated Combodia cotton may show Zn deficiency. To control, spray 0.5% ZnSO₄. [By utilizing received and anticipated rainfall, continue the rainfed sowing and do gap filling in already germinated fields.]
- In the South Zone, continue dry sowing of sorghum, cotton and maize.
- In Karaikal, continue raising medium duration rice varieties like White Ponni, Improved Samba Masuri, TKM 13 and ADT 39.
- In the High Altitude Hilly Zone, drainage facilities should be created in the field to drain off excess water. To control coffee berry borer, Ethyl alcohol and Methyl alcohol can be mixed in equal ratio of 1:1 and kept in the coffee plantation to attract the insect.
- In the Cauvery Delta Zone, brown plant hopper incidence is noticed in kuruvai paddy field. To manage this, spray Imidachloprid @ 40 ml/ acre after current spells of rain.
- **Animal Husbandry**
- In the Problem Area Zone of Kerala, avoid moist conditions in cattle shed to prevent incidence of foot rot.
- In the Central Zone of Kerala, adopt mosquito control measures. Cattle should not be allowed graze in water logged areas for avoiding diseases.
- In the Cauvery Delta Zone of Tamil Nadu, the floor and walls of sheds should be cleaned and coated with lime solution. The menace of fly and mosquitoes should be reduced in the cattle shed.
- In the Western Zone of Tamil Nadu, prevent animals from drinking of stagnated rain water to prevent contamination. Provide clean and good drinking water to animals.

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

- **Realised Rainfall:** Rainfall occurred in Dibang Valley, East Siang, Lohit, Lower Dibang Valley, Papumpare, Upper Siang and West Siang districts of Arunachal Pradesh, all districts of Assam except Baksa, Dhemaji and Sonitpur, East Garo Hills, East Khasi Hills, Ribhoi and West Garo districts of Meghalaya, Aizwal, Lunglei and Serchip districts of Mizoram, Imphal East, Imphal West, Senapati and Thoubal districts of Manipur, Dimapur and Kohima districts of Nagaland, North Tripura, South Tripura and West Tripura districts of Tripura during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rainfall is very likely at many places over Nagaland, Manipur, Mizoram & Tripura and Assam & Meghalaya from 7th to 9th October, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - As thunderstorm accompanied with lightning very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 6th and 7th October, keep cattle indoor.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Arunachal Pradesh, undertake nursery sowing of hybrid tomato, cabbage and cauliflower on raised nursery beds. Carry out harvesting of okra. Remove excess sucker from Banana in mother plant and give support to banana bunches to protect them from falling due to heavy rain. Under excessive moisture, there is every possibility of rhizome rot in ginger and turmeric. To manage the disease, provide adequate drainage and apply Trichoderma harzianum @ 50 g/bed along with FYM/ neem cake. Complete harvesting of jhum rice immediately.

- In Meghalaya, maintain water level of 2-5 cm from transplanting to maturity stage of Sali rice and should not exceed 5 cm particularly during tillering stage.
- In the North Bank Plain Zone, at panicle initiation, milky and dough stage of Sali paddy, farmers may take plant protection measure against Gundhi bug based on ETL in Sali paddy. Apply Malathion 5% dust @20 kg/ha to control rice bug infestation. Undertake land preparation and sowing of rapeseed and mustard and planting of potato.
- In Barak Valley Zone of Assam, undertake land preparation for planting of potato.
- In Lower Brahmaputra Valley Zone of Assam, undertake land preparation for planting of potato.
- In Hill Zone of Assam, undertake sowing of recommended varieties of cabbage. Farmers are also advised to make bund for conserving rain water in the field. Bund should be higher and wider so that more rain water can be conserved in the field. Also monitor paddy against attack of blast and brown spot.
- In Upper Brahmaputra Valley Zone of Assam, panicle initiation stage in *Sali* rice is very sensitive to water stress. Repair the bunds to conserve rainwater in the rice field. It is required to maintain a depth of 5 to 7 cm of water in the rice field. Due to favourable weather conditions symptoms of blast disease is observed in *sali* rice. To control the disease spray Bavistin 50 WP @ 1 ml/litre of water. Undertake land preparation for planting of potato and sowing of rabi vegetables after current spells of rain.
- In Central Brahmaputra Valley Zone and North Bank Plain Zone of Assam, undertake land preparation for sowing of rapeseed-mustard.
- In Barak Valley Zone of Assam due to rainfall and humid weather condition there is chance of attack of sheath blight, stem borer and Bacterial Leaf Blight diseases in sali rice field. Apply Carbendazim @ 2 gm/litre of water against sheath blight and stem borer attack, apply 1 kg Potash fertilizer per bigha of land or stop top dressing of nitrogenous fertilizer against Bacterial Leaf Blight after current spells of rain.
- **Nagaland, Mizoram, Manipur and Tripura:**
- In Tripura, undertake sowing of winter vegetable like tomato, cauliflower, cabbage, broccoli, etc. on raised nursery beds. Complete the harvesting of jhum rice and undertake land preparation for planting of potato.
- In Manipur, drain out excess water and maintain at the level of 5 to 8cm if accumulate due to rains in the field of rice. Regular monitoring of pest and disease infestation is essential. Undertake harvesting of soybean, groundnut, blackgram and rice bean when the pods turns yellow in clear weather. Undertake land preparation for planting of potato.
- In Mizoram, undertake harvesting of jhum rice, kharif maize and cow pea in clear weather. Continue sowing of rabi maize, toria and nursery sowing of early cole crop.
- In Nagaland, undertake harvesting of jhum rice and land preparation for sowing of toria and rabi maize.
- **Animal Husbandry**
- In Northeastern states, immunizations against FMD, Anthrax, HS and BQ in cattle & buffaloes and swine fever in pigs may be carried out during monsoon season. Vaccination (RDF1) against Ranikhet disease in one week old chicks and against Gamboro disease in two weeks old chicks may be carried out.
- In Hill Zone of Assam, ensure proper ventilation in poultry houses. Replace the poultry houses with fresh litter and keep the houses clean. Climate is congenial for attack of Diathermia, advice to increase protein in feed of poultry birds.
- **Fishery**
- In Assam, in fish ponds, apply fish feed (mustard oil cake) for achieving higher yield.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rainfall occurred in North Goa, Raigad, Sindhudurg, South Goa, Kolhapur, Sangli, Satara districts of Maharashtra during the week and weather remained mainly dry/dry over rest of the region.
- **Advisories:**
 - As rainfall is very likely at most/many places over Madhya Maharashtra, Marathwada and Vidarbha from 7th to 9th at many places over Konkan & Goa from 8th to 10th October, along with heavy to very heavy/heavy rain at isolated places over Konkan & Goa on 8th and 9th, heavy rain at isolated places over Madhya Maharashtra and Vidarbha on 8th and 9th and over Marathwada on 8th October, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops. undertake harvesting of kharif crops like matured soybean and pearl millet after current spell of rain and keep already harvested produce in safer place. Provide adequate drainage in standing kharif crops, vegetables and orchards.
 - As thunderstorm accompanied with lightning very likely at isolated places over Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha on 6th and 7th October, keep cattle indoor.
 - **Maharashtra:**
 - In Konkan, postpone harvesting of early rice mature varieties. Keep the already harvested produce in safer place. Maintain 5-10 cm water level in rice fields at flowering/grain filling stage. Drain out excess water from rice fields.
 - In Western Maharashtra Plain Zone, Maintain 5 to 10 cm water level in rice field. Undertake sowing of the rabi

crops with availability optimum soil moisture. Complete sowing of rainfed gram with the available soil moisture. For sowing use Dig Vijay, Vijay or Jacky 9218 varieties.

- In Marathwada, in view of heavy rain at isolated places on 8th October, avoid the sowing the crops like wheat, chickpea and safflower. Provide adequate drainage to avoid water stagnation in the sugarcane fields and orchards. Undertake harvesting of matured vegetable crops as early as possible.
- In West Vidarbha, undertake harvesting of matured black gram and soybean crop after current spell of rain and keep already harvested produce in safer place. Undertake preparatory tillage in harvested soybean fields with minimum tillage to avoid excess moisture loss from field for sowing of early rainfed rabi crops. Considering local climate condition and rainfall forecast, prolong sowing of *rabi* crops for next three days. *Kharif* sorghum is in grain development stage, to control attack of stem borer/army worms, spray Chlorpyrifos @ 20 ml per 10 liter of water after current spell of rain.
- In East Vidarbha, in late rice varieties maintain 5-7 cm water level in rice field. In late transplanted rice, if gall midge attack is observed, apply carbofuron 3G granules @ 10 kg/acre or Phorate 10 G @ 5 kg/acre. In low water logging area there may be incidence of brown plant hoppers in rice crop, for control spray 50% Malathion @ 10 ml or Monocrotophos @ 15 ml or Cypermethrin @ 3 ml per 10 litres of water. If attack of leaf eating caterpillar is observed in red gram, spray Quinalphos 25 EC @ 16 ml per 10 litres of water after current spell of rain

▪ **Gujarat:**

- In North Saurashtra Zone, carry out sowing of garlic (Gujarat Garlic-5 or Local), gram (Gujarat chana-2 (unirrigated), Gujarat chana-3 (irrigated)), mustard (Varuna, Gujarat rai-3) crop. Undertake intercultural operations to maintain the soil moisture and to control weeds. Undertake mulching by using dry grass, crop residues etc. In areas of severe dry spell, spray 2% Potassium Nitrate (2 kg in 100 litres of water) on the standing crops. Apply irrigation to the crops as per availability and crop stage.
- In Bhal and Coastal Zone, maintain water level of 5-7 cm in rice fields. Reduce the irrigation interval in standing crops like cotton, castor, rice field, vegetable crops and grass etc. Continue harvesting of sesame, pearl millet, green gram and cowpea. Keep inputs ready for sowing of *rabi* crops like wheat, chickpea, sorghum and mustard. Undertake soft wood grafting in mango nursery.
- In Middle Gujarat Zone, undertake harvesting of sesame, pearl millet, green gram crops. Carryout intercultural and mulching operations in castor.
- In South Gujarat Heavy Rainfall Zone, continue nursery preparation for brinjal and chilli. Undertake land preparation and keep field ready for planting of sugarcane crop. Continue harvesting of matured pulses.
- In South Gujarat Zone, continue planting of sugarcane. Spray Planofix @ 1 ml/4-5 litres of water against dropping of square and small bolls of cotton.
- In South Saurashtra Zone, apply irrigation in sugarcane crop and vegetables. Undertake harvesting of matured groundnut, pulse crops like black gram, green gram, chickpea and soybean.
- In North West Zone and North Gujarat Zone, as dry weather would prevail, continue harvesting of matured bajra, maize, green gram and cowpea. To reduce dropping of flower and immature bolls in pre-sown cotton, spray Nephthalic Acetic Acid @ 7 ml /10 liters of water.
- In Middle Gujarat Zone, for control of semi looper in castor crop, spray Quinalphos 25 EC @ 20 ml in 10 litres of water at 15 days interval.
- In North Saurashtra Zone, heavy infestation of prodenia observed in castor; spray Quinalphos @ 20 ml in 10 liters of water for control. Pink boll worm infestation was noticed in cotton; pick and bury the infested flowers/bolls in soil for control. Also spray Profenofos 50 EC @ 20 ml or Cypermethrin @ 10 ml in 10 liters of water.
- In North Gujarat Zone and North West Zone of Gujarat, prevailing high temperature and low humidity favours outbreak of semi looper in casor and infestation of thrips, jassid in cotton and cluster bean; to control semi looper in castor, spray Quinalphos @ 20 ml in 10 litres of water at 15 days interval and to control thrips, jassid in cotton and cluster bean, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water.

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

- **Realised Rainfall:** Rainfall occurred in North & Middle Andaman and South Andaman districts of Andaman & Nicobar Islands, all districts of Gangetic West Bengal except howrah, Kolkata and Nadia, Darjeeling, Jalpaiguri, Malda, North Sikkim, South Sikkim and West Sikkim districts of Sub-Himalayan West Bengal & Sikkim, Araria, Banka, Bhagalpur, Jamui, Katihar, Kishanganj, Monghyr, Purnea and Supaul districts of Bihar, Bokaro, Deoghar, Dhanbad, Dumka, East Singbhum, Giridh, Godda, Hazaribagh, Jamtara, Khunti, Latehar, Pakur, Ramgarh, Ranchi, Sahebganj, Saraikela, Simdega and West Singbhum districts of Jharkhand, all districts of Odisha except Deogarh, Mayurbhanj, Nawapara, Nawarangpur, Nayagarh and Rayagada during the week and weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers very likely at mos/many places over Odisha from 6th to 9th, at many places over Sub-Himalayan West Bengal on 9th and 10th, over Gangetic West Bengal from 7th to 9th, over Jharkhand from 7th to 10th

and over Andaman & Nicobar Islands during the period, over Bihar on 10th October, along with heavy rain isolated places over Odisha from 6th to 8th, over Gangetic West Bengal on 8th, over Jharkhand on 9th and 10th October, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops.

- As thunderstorm accompanied with lightning very likely at isolated places over Gangetic West Bengal and Jharkhand on 6th October, keep cattle indoor.

- **Odisha:**

- In North Central Plateau Zone, continue sowing of green gram, black gram and cowpea.
- In West Central Table Land Zone, red and black hairy caterpillar has been found in groundnut and pulses. Apply 10-12 kg Chloropyriphos or spray 400 ml quinalphos and endosulphan in 200 liter water after current spells of rain.
- In South Eastern Ghat Zone, current weather may favour blast disease in rice. Spray Carbendazim 50% WP @ 1g/litre of water or Tricyclazole 75% WP @ 0.6 g/litre of water after current spells of rain.
- In South Eastern Ghat Zone, due to high humidity and cloudy weather there is chance of bacterial leaf blight in paddy, spray the crop with 1 g Streptocycline along with 20 g Copper oxychloride in 10 litres of water after current spells of rain.
- In South Eastern Ghat Zone, leaf folder reported in rice field, spray Chlorpyriphos 20% EC 2 ml/litre of water or Chlorantraniliprole 18.5% SC 0.3 ml/litre of water after current spells of rain.

- **Bihar:**

- In North East and North West Alluvial Zone of Bihar, to protect from damping - off of vegetable seedlings in nursery bed, spray Copper oxychloride 50WP @ 3g/litre of water +Streptocycline @ 1g/10 litres of water on a non rainy day.
- In South Bihar Alluvial Zone, maintain 3-5 cm water level in rice fields and undertake weeding and hoeing in vegetables. Present weather conditions are highly favourable for incidence of Blast disease in rice. Monitoring at 2-3 days interval is advised. Early symptoms include development of eye shaped spot in the leaf sheath with light center and dark boundaries. If symptoms appear, spraying of Bavistin 2 g/litre of water 2-3 times with an interval of 10 day is advised for effective control. Also in maize fields, constant monitoring of stem borer should be done, if insect population is above ETL, spray Carbrayl @ 2 gm/litre of water. Undertake plant protection measures on a non rainy day.

- **Jharkhand:**

- In South Eastern Plateau Zone, undertake field preparation for the cultivation of short duration early potato varieties viz. Kufri Ashoka and Kufri Pukhraj, Kufri Surya and Kufri Puskar of 80-90 days crop.
- In Western Plateau Zone, farmers having at least 3-4 irrigation facility may proceed for cultivation of rainfed wheat, potato and green pea. And those who have only 2 - 3 irrigation facility may proceed for toria or mustard sowing. For sowing of toria select varieties like T.-9, B.R.-23 and P.T.-303. Undertake field preparation and sowing of mustard and select the improved varieties like Shiwani, Varuna, Pusa Bold, BR-40 etc. Select varieties like Kufri Ashoka, Kufri Pukhraj, Kufri Lalima, Kufri Pushkar and Kufri Kanchan for planting of potato and Arkel, Kashi Nandini, P.E.-6, Birsa Matar varieties for sowing of green pea.
- In Central and North Eastern Plateau zone, pigeon pea crops at vegetative stage are seen with the infestation of insects like beetles and can be controlled by spraying of Chlorpyriphos @ 1.5 ml per liter of water after current spells of rain.

- **West Bengal:**

- In the New Alluvial Zone, undertake harvesting of Aman rice after current spells of rain.
- In the Old Alluvial Zone, continue seedbed preparation and sowing of cabbage and cauliflower. Spray Propoconazole @ 0.75 ml/litre of water to control sheath blight, Tricyclozole @ 0.5 gm/litre of water to control blast and Chlorpyphos @ 2 ml/litres of water to control leaf folder/case worm in paddy. Undertake plant protection methods after current spells of rain.
- In the Hill Zone of West Bengal, carry out regular harvesting of bhindi and round chilli crop. Spray Azadirachtin 0.03% (300PPM) neem oil based WSP @ 2000gm/ ha in 1000 litres of water, if 10% dead heart or 2 egg mass / m² of yellow stem borer is found in rice and spray Validamycin 3%L @ 0.75 ml/lit of water for incidence of blast and sheath blight disease in rice crop. Undertake plant protection methods on a non rainy day.
- In the New Alluvial Zone, fruit rot and collar rot disease is prevalent in vegetables, due to past continuous rainfall and high humidity. To control it apply Carbendazim 12% + Mancozeb 63% @ 2 gm per litre of water after current spells of rain.
- In Coastal Saline Zone, carry out hand weeding in the Aman paddy field. Spray Trizophos @ 1.5 ml/litre of water for stem borer attack and Chlorpyriphos @1.5 ml/ litre of water for leaf roller attack in Aman paddy. Spray a mixture of Bavitin@1g/liter of water and Diethane M-45 @ 2.5 gm/litre of water for Stem rot or blunt rot due to occasional rainfall and high humidity Early winter Vegetables. Undertake plant protection methods after current spells of rain.

- **Animal Husbandry**

- In Coastal Saline Zone of West Bengal, protect animals from parasites. Lambs should be vaccinated against Enterotoxemia. Prepare silage from the abundantly available green fodder. Also, green fodder can be mixed with

dry grasses and fed to the animals. Calf should be fed with calf starter after 3-4 days of birth. It helps in good development of the digestive system.

- **Fishery**

- Apply Rice bran & Mustered oil cake (1:1) @ 3-2% of the total body weight of fish stocked in the fish culture pond as a supplementary feed.

CENTRAL INDIA [M.P., CHHATTISGARH]

- **Realised Rainfall:** Rainfall occurred in Singrauli district of East Madhya Pradesh, Bemetara, Bijapur, Durg, Gariaband, Janjgir, Kanker, Kondagaon, Mahasmund, Narayanpur, Raigarh, Sukma districts of Chhattisgarh except Balod, Balrampur, Bilaspur, Kabirdham, Koriya, Mungeli, Surajpur and Surguja during the week and weather remained mainly dry/dry over rest of the region.

- **Advisories:**

- As rain/thundershowers very likely at most/many places over Chhattisgarh from 8th to 10th October, along with heavy rain at isolated places over Chhattisgarh from 7th to 10th, over East Madhya Pradesh on 8th and 9th October, avoid intercultural operation and application of plant protection measures and fertilizers to the standing crops.

- As thunderstorm accompanied with lightning very likely at isolated places over Madhya Pradesh and Chhattisgarh on 6th and 7th October, keep cattle indoor.

- **Madhya Pradesh:**

- In Kymore Plateau and Satpura Hill Zone, continue nursery preparation of cauliflower and cabbage. Apply irrigation in rice fields at flowering stage. Continue field preparation for sowing of mustard and garden pea.

- In Malwa Plateau Zone, continue nursery preparation for winter vegetables. Continue harvesting of matured soybean and maize. Continue field preparation for chickpea, potato, garlic and onion.

- In Jhabua Hill Zone, continue harvesting of matured pods of black gram, green gram, soybean and maize. Undertake harvesting of matured vegetables.

- In Gird Zone, continue sowing of toria. Continue land preparation for sowing of mustard. Continue harvesting of matured soybean, maize, green gram, black gram and bajra.

- In Vindya Plateau Zone, continue harvesting of matured soybean, green gram and black gram. Continue nursery sowing of *rabi* vegetables. Undertake sowing of potato and garlic and nursery sowing of onion.

- In Nimar Valley Zone, for control of sucking pests in vegetables, apply neem oil @ 50ml/pump on a non rainy day.

- **Chhattisgarh:**

- In North Hill Zone, continue raising of seedlings of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal. Continue sowing of *rabi* crops like toria, mustard, green pea and potato and arrange seed & fertilizer for cultivation of rain fed wheat, if having assured irrigation facility. Undertake harvesting of matured maize in clear weather.

- In Bastar Plateau Zone, continue nursery preparation for *rabi* vegetables. Undertake field preparation for sowing of toria.

- In Chhattisgarh Plain Zone, continue nursery sowing of vegetables. Keep inputs ready for sowing of *rabi* crops like chickpea, wheat, linseed, toria etc.

- In North Hill Zone, attack of blast is observed in rice crop, spray Tricyclazole @ 120 gram per acre after current spells of rain and repeat after 10-12 days as per requirement.

- **Animal Husbandry**

- In Madhya Pradesh, vaccinate the poultry birds to prevent Ranikhet disease. Provide green fodder, fresh and clean water three times a day to cattle.

- In Chhattisgarh, provide concentrate feed to milch animals mix with dry and green fodder and insure for enrich diet having protein, carbohydrate, fat, vitamins etc.

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

- **Realised Rainfall:** Rainfall occurred in Sharawasti district of East Uttar Pradesh during the week and weather remained mainly dry/dry over rest of the region.

- **Advisories:**

- **Jammu & Kashmir:**

- In Sub Tropical Zone, as mainly dry weather would prevail, continue harvesting of matured rice and maize. Continue sowing of toria (RSPT-1, RSPT-2, RSPR-3) intercropped with gobisarson (GSS-1) can be done under conserved soil moisture condition. Undertake harvesting of moong to avoid shattering loss at regular interval. Spray the pulses crop with Imidacloprid @0.5% to control the population of white fly which is the major vector of disease.

- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, continue land preparation and sowing of toria and continue nursery raising of main season cole crops (cauliflower, cabbage and *Knolkhol*). Farmers are advised to utilize the upcoming dry weather conditions to harvest matured rice and early sown maize crop (where

cobs and stem color turns yellow).Undertake nursery sowing of late cauliflower and onion crop.

▪ **Uttarakhand:**

- In Udham Singh district of Bhabar and Tarai Zone, undertake harvesting of early and mid season variety of Paddy on the appearance of golden color of panicle in Paddy. In irrigated areas continue sowing of radish and turnip and in unirrigated mid hills, radish varieties like Meenu early, Japanese white, Pusa Himani and early varieties of Saljam like Parpilotop, white glow should be sown.

▪ **Punjab, Haryana and Delhi:**

- In Delhi, undertake sowing of mustard using varieties like Pusa Tarak, Pusa Mahak. Continue sowing of carrot in the raised bed. Continue field preparation for early pea. Continue nursery preparation on raised bed for mid season cauliflower (Nov.-Dec.). Undertake sowing of sarson saag and transplanting of green onion seedling in the prepared fields. Undertake planting of early potato in the fields. In present weather condition, False Smut may appear in paddy. Symptoms include increase in grains size with brown colored fungus inside. Spray Blitox 50 @ 500 grams per acre at 10 days interval (2-3 times).
- In Haryana, as dry weather is forecasted during the period, farmers are advised to apply protective irrigation in standing crops wherever necessary. In Western Zone undertake picking of cotton in clear weather. Undertake sowing of mustard with varieties RH-30, RH-0749, RH-0406, Varuna, Laxmi etc if sufficient moisture is available in soil. In Eastern Zone apply irrigation to late sown Basmati varieties to avoid water stress during anthesis and grain filling stage. In western Zone there may be infestation of bacterial blight in cotton, if infestation is above ETL then spray 800g Copperoxychloride mixed with 250 water per acre in clear weather. In Eastern Zone there may be attack of hoppers on paddy, if infestation is above ETL then spray 330ml buprofezin (Tribune) 25SC or 250ml Monocrotophos 36SL or 125ml Dichlorvos (Nuvan) 76 EC or 400g Carbaryl 50 WP in 200 litres water per acre.
- In Western Zone of Punjab, undertake sowing of wheat under irrigated condition. As dry weather would prevail, apply irrigation in rice and cotton fields as per requirement. Continue sowing of early potato and “desi” varieties of radish (Punjab Pasand), turnip (L-1) and carrot (Punjab Black Beauty, Punjab Carrot Red and PC 34). In Western Plain Zone undertake sowing of raya, berseem, onion, tomato, pea and chick pea. Complete sowing of potato.

▪ **Himachal Pradesh:**

- In Mid Hills Sub-Humid Zone of Himachal Pradesh, undertake sowing of Arkel pea or VL-7 after seed treatment with Bavastine @ 20g/10kg of seed. Undertake transplanting of nursery of cabbage, Broccoli, Brussels Sprout, Kel, *Knol khol* and Chinese cabbage. Undertake sowing of carrot, radish, spinach and turnip in the prepared fields.

▪ **Uttar Pradesh:**

- In Central Plain Zone of Uttar Pradesh, continue harvesting of matured maize and pulse crops. Maintain moisture in the field of paddy and maize by light irrigation as paddy is in milking stage and maize is in grain filling stage.
- In Central Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of khaira disease in paddy crop, for control apply Zinc Sulphate @ 25kg/ha as basal. For control of stem borer, brown plant hopper, gall midge, leaf folder and jassids, apply Profenophos 50EC @ 2 ml/litre.
- In Central Plain Zone of Uttar Pradesh, there may be chances of attack of yellow mosaic in moong/urad crop for control spray 2 to 3 times of Dimethoate 30 E.C. @ 1 litre or Methyl-O-Demeton 25 E.C. @ 1 litre per hectare.

▪ **Rajasthan:**

- In Sub Humid Southern Plain and Aravali Hill Zone, in Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts, undertake harvesting of matured moong and urad crops and picking of matured cobs of maize and pods in green gram. This is the right time for sowing of Ajwain, gram and mustard. Sowing should be completed before 15th of October. Preparation of seed bed should be done for raising nursery of onion, chilli, brinjal, cauliflower, cabbage and tomato for *rabi* season.
- In Sub Humid Southern Plain and Aravali Hill Zone, in Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts, prevailing weather condition is congenial for attack of cob borer in maize crop for control spray Carbaryl WP @ 4 g per litre.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, Undertake field preparation for the sowing of rainfed Taramira and Mustard. Continue sowing of radish (*var*: Pusa Rasmi).
- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, undertake raising of nursery for late sown cauliflower. Pusa snow ball K-1, Hisar-1, Dania and Selection-7 are improved varieties. Undertake sowing of radish (*var*: Japanese white and hill queen).
- In Arid Western Plain Zone, for sowing of mustard and gram wait for some time till fall of temperature suitable for sowing. Best time for sowing of mustard and gram is between 15-25 October when day temperature is below 35 deg. celcius.
- In Srinagar and Hanumangarh district of Irrigated North Western Plain Zone Plain Zone, undertake land preparation/sowing of sarson and gram. Suitable time for sowing of gram is in between 20th Oct to 5th Nov.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, due to rise in temperature, termite may attack standing groundnut crop. To protect crop give Chlorpyrifos 25 EC @ 4.0 litre per hectare with irrigated water or mix the same amount of Chlorpyrifos in 80-100 kg soil and broadcast and irrigate immediately.

- **Horticulture:**

- In East Rajasthan, In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar districts, start planting of new seedlings of kinnow in already prepared pit in the field. Purchase kinnow plants from certified nursery, after planting apply light irrigation at regular interval.
- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for attack of fruitfly in guava, for control spray Malathion 50 EC @ 1.0 ml/litre of water.

- **Animal Husbandary:**

- In Jammu & Kashmir, vaccination should be done in livestock against foot & mouth disease, Haemorrhagic Septicemia etc. Farmers are advised for silage making, so that green fodder should be conserved for scarcity period.
- In Punjab, in poultry, light plays an important role in egg production. Provide 14-16 hours of total light to layers, including the day light. Gradually go on increasing the light when egg production starts.

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