



National Agromet Advisory Service Bulletin

Thursday 26th October 2018
(For the period 26th to 31st October 2018)



Issued by
India Meteorological Department

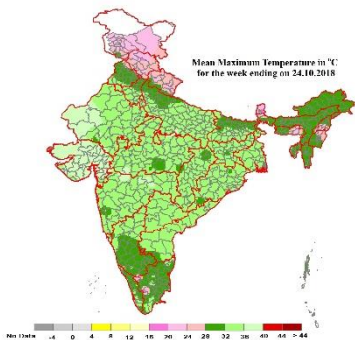
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District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>

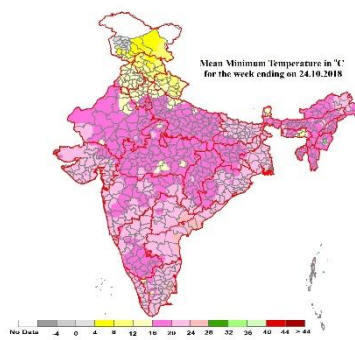
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

Spatial distribution of weather parameters for the week ending on 24.10.2018

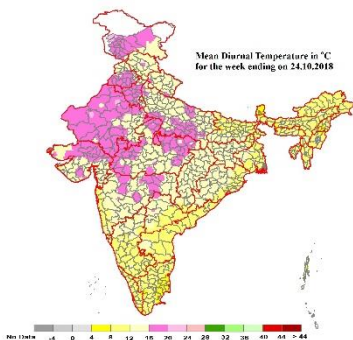
Mean Maximum Temperature (°C) for the week ending on 24.10.2018



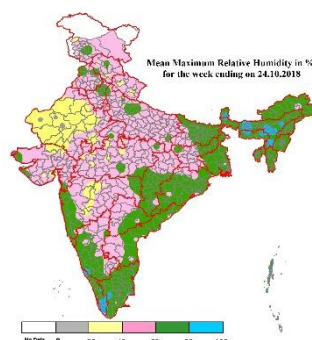
Mean Minimum Temperature (°C) for the week ending on 24.10.2018



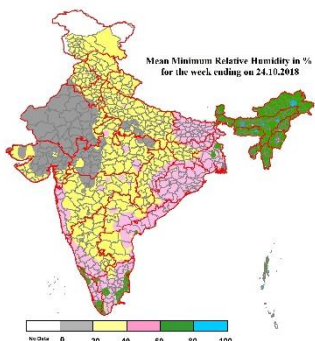
Mean Diurnal Temperature Variation (°C) for the week ending on 24.10.2018



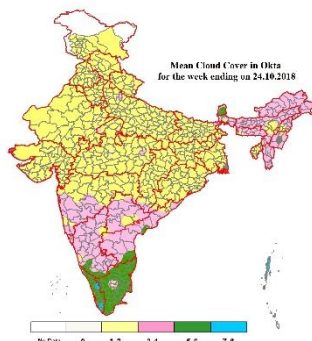
Mean Maximum Relative Humidity (%) for the week ending on 24.10.2018



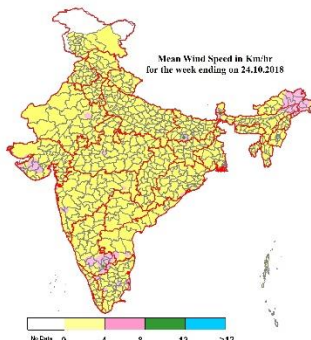
Mean Minimum Relative Humidity (%) for the week ending on 24.10.2018



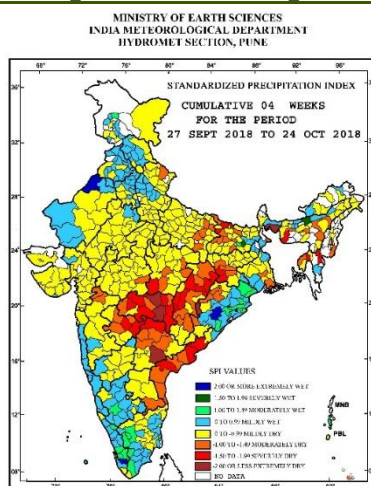
Mean Cloud Cover (okta) for the week ending on 24.10.2018



Mean Wind Speed (km/hr) for the week ending on 24.10.2018

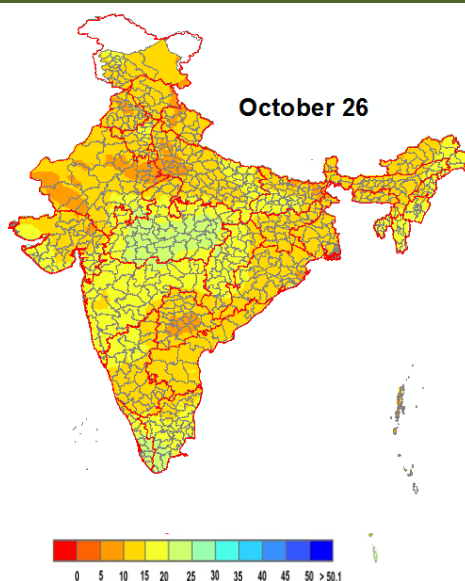


Standardised Precipitation Index Cumulative 4 weeks for the period 27th September to 24th October 2018

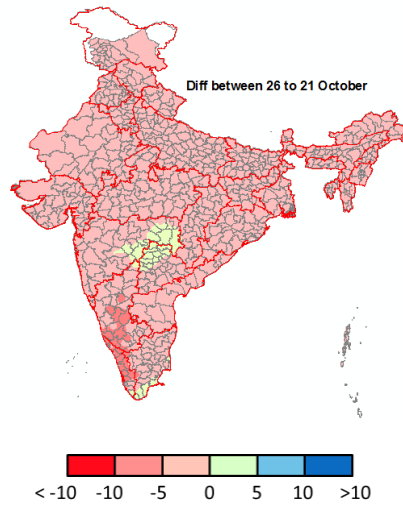
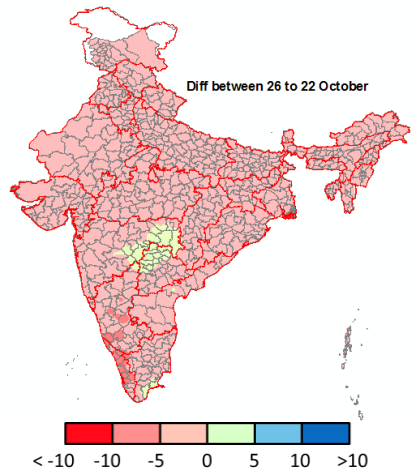
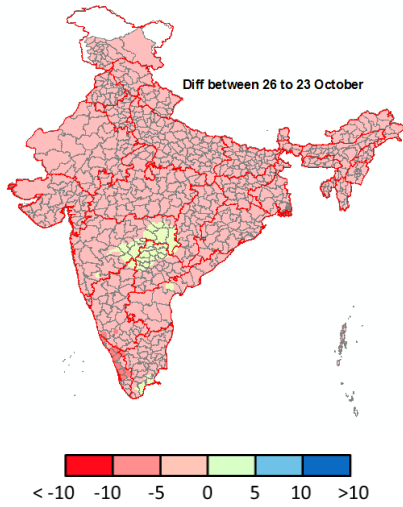
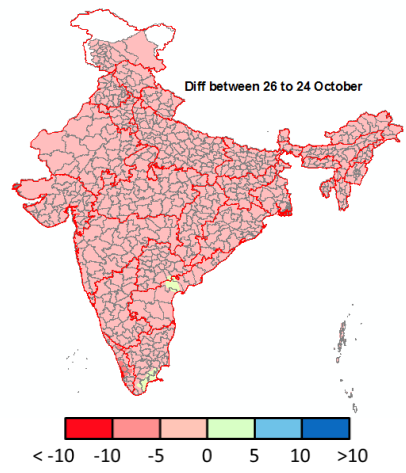
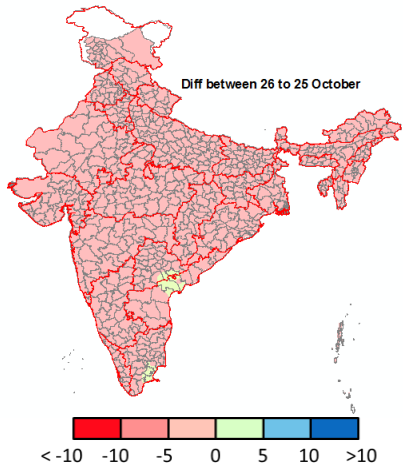


- Extremely/severely wet conditions experienced in Udalguri district of Assam; Kandhamal, district of Odisha; Monghyr district of Bihar; Sri Ganganagar district of Rajasthan; Pathanamthitta district of Kerala.
- Extremely/Severely dry conditions experienced in few districts of Maharashtra and Chhattisgarh; West Garo Hills district of Meghalaya; Cooch Behar district of West Bengal; Nawapara district of Odisha; Gumla and Simdega districts of Jharkhand; East Champaran, Sitamarhi and Siwan, districts of Bihar; Chindwara district of Madhya Pradesh; East Godavari, Guntur and Vishakhapatnam districts of Andhra Pradesh; Adilabad and Nalgonda districts of Telangana.
- Moderately dry conditions experienced in few districts of Assam, Maharashtra, Chhattisgarh, Andhra Pradesh and Telangana, West Tripura district of Tripura; South Dinajpur, Hooghly and Howrah, districts of West Bengal; Bargarh, Jharsuguda, Nawarangpur and Sambalpur districts of Odisha; Lohardaga, Ranchi, Latehar, and Khunti districts of Jharkhand; Bhojpur, Buxar, West Champaran, Darbhanga, Nawada, Patna, and Saran districts of Bihar; Azamgarh, Deoria, Gorakhpur, Jaunpur and Mirzapur district of Uttar Pradesh; Chamoli district of Uttarakhand; Hoshangabad, Jabalpur, Seoni, Shahdol and Anuppur districts of Madhya Pradesh; districts of TamilNadu & Puducherry.
- Rest of the country experienced moderately wet/mildly dry/mildly wet conditions.

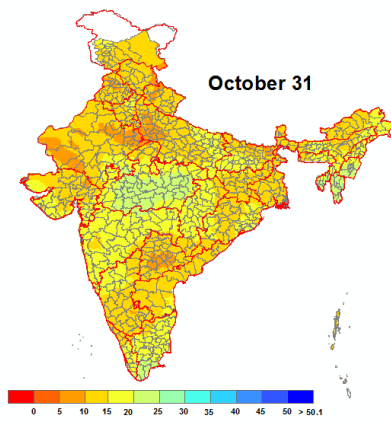
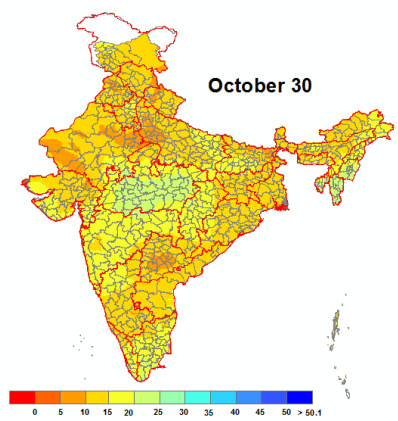
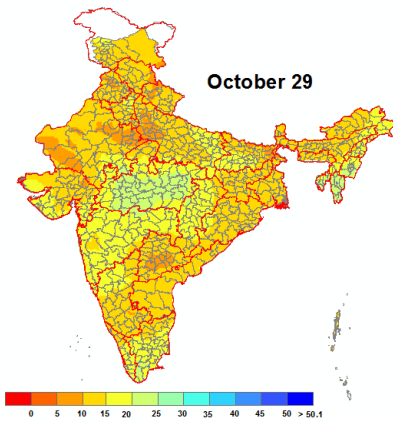
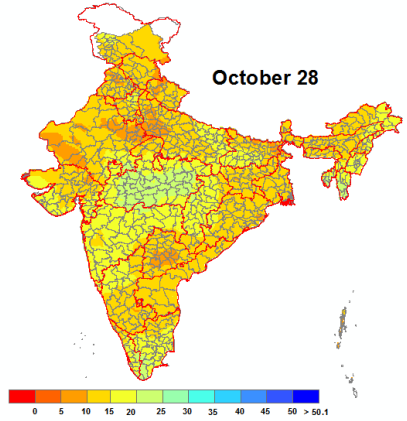
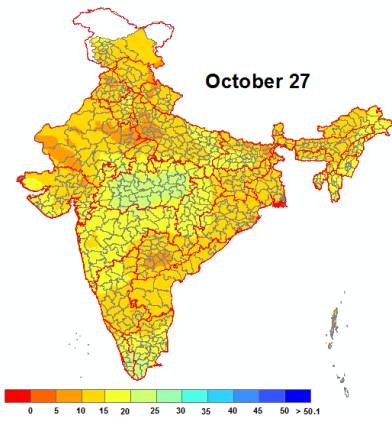
Daily Soil Moisture (mm) for 26th October 2018 (ending at 0830 IST) for 60 cm depth

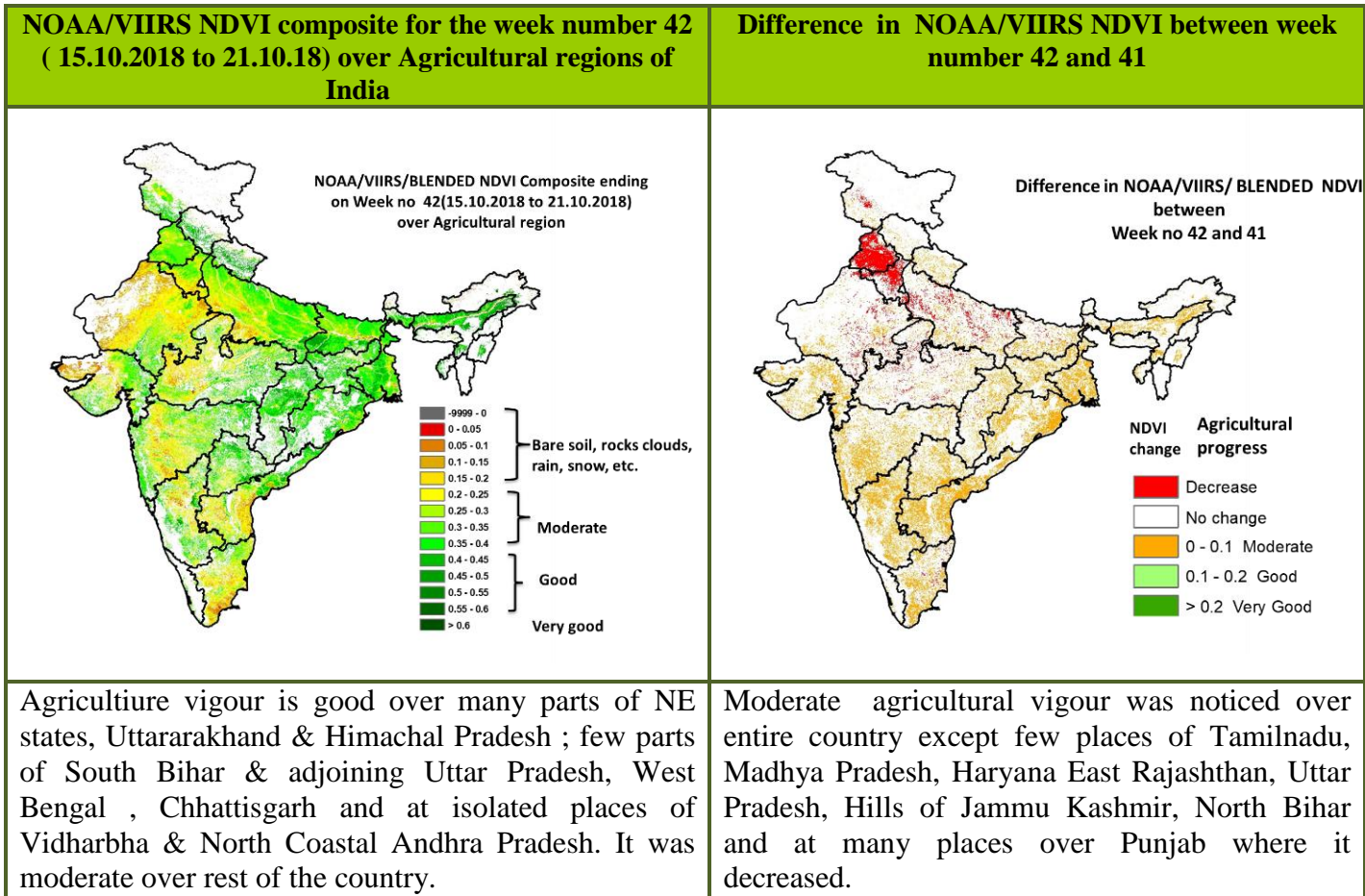


Difference of Soil Moisture (mm) for 60 cm depth



**Forecasted Soil Moisture (mm) from 27th to 31st October 2018 (ending at 0830 IST)
for 60 cm depth**





Weather Forecast for next 5 days valid upto 0830 hours of 31st October 2018

Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table below.

- Shallow to moderate fog very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2 days.
- Maximum & minimum temperatures are very likely to fall by 2-3⁰C over parts of West, Northwest, Central & East India during next 2-3 days. No significant change in temperatures over rest of the country during next 3-4 days.

5 Day Rainfall Forecast (Mid day)

26th October 2018

5 Day Rainfall Forecast (MID-DAY)

26-October-2018

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

% Station Reporting Rainfall

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

Weather Warning during next 5 days

- 26 October (Day 1): ♦ No weather warning.
- 27 October (Day 2): ♦ No weather warning.
- 28 October (Day 3): ♦ No weather warning.
- 29 October (Day 4): ♦ Heavy rain likely at isolated places over coastal Odisha and Gangetic West Bengal.
- 30 October (Day 5): ♦ Heavy rain likely at isolated places over Gangetic West Bengal.

Weather Outlook for subsequent 2 days from 31st October to 2nd November 2018

- Fairly widespread to widespread rainfall activity likely over Tamilnadu & Puducherry and scattered to fairly widespread rainfall activity over Kerala and Andaman & Nicobar Islands.
- Isolated rainfall likely over coastal Odisha, Coastal Andhra Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Lakshadweep.
- Dry weather likely over rest of the country.

Salient Advisories

- As rain/thundershowers likely at many places over **Andaman & Nicobar Islands** on 26th and 27th October, heavy rain likely at isolated places over **Coastal Odisha** on 29th and over **Gangetic West Bengal** on 29th & 30th October, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.
- Complete sowing of gram and mustard in Sub Humid Southern Plain and Aravali Hill Zone of **Rajasthan** and prepare field for sowing of wheat. Undertake sowing of *rabi* maize, groundnut and castor under irrigated condition in South Telangana Zone. Undertake sowing of *rabi* maize, groundnut, Bengal gram, coriander, mustard & safflower under irrigated condition in **Northern Telangana Zone**. In **South Interior Karnataka**, undertake sowing of sunflower, chickpea, safflower and sorghum. In **Punjab**, undertake land preparation and sowing of mustard, raya and wheat.
- As dry/ mainly dry weather would prevail, undertake harvesting of fully matured rice crop in **Coastal Karnataka** and *Virrippu* rice in North Zone of **Kerala**. In **South Interior Karnataka**, continue harvesting of matured maize cobs and groundnut.
- In **Vidarbha**, apply protective irrigation to vegetables and orchard crops. Wherever possible, need based protective irrigation is advised during morning/evening hours to avoid moisture stress in rainfed cotton. If irrigation is not possible undertake foliar spray of 1% KNO₃ or 1.5% Sulphate of potash for moisture stress tolerance and boll development. If possible light hoeing can be undertaken to provide dust mulch to break soil capillarity reducing evaporative loss of soil moisture

Detailed Agromet Advisories

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

Realised Rainfall: Rainfall occurred in all districts of Kerala except Kasargod, Dakshina Kannada district of Coastal Karnataka, Haveri, Koppal and Raichur districts of North Interior Karnataka, all districts of South Interior Karnataka except Chamarajanagar and Shivamogga districts, Coimbatore, Cuddalore, Kanchipuram, Kanyakumari, Karaikal, Madurai, Nagapattinam, Namakkal, Puducherry, Ramanathapuram, Theni, Tirunelveli, Toothukudi, Villupuram, Virudhunagar districts of Tamil Nadu, all districts of Rayalaseema and Hyderabad, Jogulamba, Gadwal and Wanaparthy districts of Telangana during past week. Weather remained mainly dry over rest of the region

- **Advisories:**

- **Kerala:**

- In Northern zone, undertake harvesting of *Virrippu* rice crop and nursery preparation for *Mundakan* rice.
- In Central zone, undertake land preparation for transplanting of *Mundakan* rice. This is the best time to sow cabbage and cauliflower seeds in the nursery beds. Addition of pseudomonas culture to the soil at the time of planting of cabbage and cauliflower will help to reduce fungal diseases.

- In High Altitude Zone of Kerala, to control coffee berry borer at berry development stage of coffee, apply Carbaryl 50WP @ 4 kg in 200 litres of water.
- **Andhra Pradesh:**
 - In High Altitude Tribal Zone of Andhra Pradesh, undertake harvesting of groundnut, ragi and maize.
 - In Rayalaseema. carry out harvesting of groundnut when 80% of the leaves turn yellow. Continue land preparation and sowing of chickpea
 - In South Coastal Andhra Pradesh before undertaking sowing of rabi pulses treat the seeds with Thiram/ Mancozeb/ Carbendazim @ 2.5 gm per kg of seed and Imidachloprid 600 FS @ 5 ml or Thiamethoxam 70 WS 5g/kg of seed 24-48 hours before sowing to avoid seed borne diseases.
 - In North Coastal Andhra Pradesh, in paddy crop at panicle emergence to flowering stage, spray Cartap hydro chloride granules @ 8 kg/acre for control of stemborer and Monocrotophos @ 2.2 ml per litre of water and also Hexaconazole @ 2 ml per litre of water for BPH and Sheath blight.
- **Telangana:**
 - Take up sowing of *rabi* Maize, Groundnut and Castor and complete the sowing of Rabi Red gram under irrigated condition in South Telangana zone. As dry weather is prevailing, apply one irrigation to the cotton which is at boll development stage, where ever the irrigation facilities are available.
 - Take up sowing of *rabi* Maize, Groundnut, Bengal gram, coriander, mustard & safflower under irrigated condition in Northern Telangana zone.
- **Tamil Nadu:**
 - Due to the prevailing weather condition, the incidence of Fall Army worm is seen in Maize fields in Southern Zone. To control, spray Chlorantraniliprole 18.5 SC @ 5ml or Emamectin Benzoate 5 SG @ 10 gm with 10 liters of water on the top of the shoot on a non rainy day.
 - In Western zone, to control Reddening disease in Winter Combodia cotton, spray mix solution of 5% Magnesium Sulphate along with 1% urea and 0.1 % Zinc Sulphate on non rainy days.
- **Karnataka:**
 - In North Interior Karnataka, complete sowing of sorghum and rainfed wheat. Continue sowing of Bengal gram, sunflower, chickpea, safflower, irrigated wheat crops. Undertake weeding in 20-25 days old sorghum, chickpea and safflower crops. Continue harvesting of maize crop.
 - In Coastal Karnataka, undertake harvesting of fully matured rice crop and sundry the produce.
 - In South Interior Karnataka, continue harvesting of matured maize cobs and matured groundnut. Undertake sowing of sunflower, chickpea, safflower and sorghum Continue sowing of maize, Bengal gram, finger millet, field bean and horse gram crops. Take up repeated intercultural operations in already sown crops to conserve soil moisture and to control weeds.
 - In South Interior Karnataka, army worms menace was noticed on jowar, rice, ragi, sugarcane and other crops; to control, hand pick and destroy the eggs; as soon as larvae noticed, spray 5 % Azadiraktine (neem based pesticide) @ 0.5 ml / 1 litre of water. Spray Imamectin benzoate 5%SG @ 0.4g or Spinoride 45 SC @ 0.3ml or Thiodicarbe 2g/litre of water. Spray volume required per acre is about 250-300 litres.
 - In Coastal Karnataka, deficiency of Potassium is noticed in rice crop in North Canara district; spray 1% Potassium (10 g Potassium Nitrate in 1 liter of water) in clear weather to overcome it. For control of fruit rot in cocoa remove the rotted fruits and spray 1% Bordeaux mixture.
 - In North Interior Karnataka, install 8-10 yellow or blue sticky traps / acre above the 1 foot crop canopy or spray Imidacloprid 17.8 SL @ 0.3 ml or 1 g Acephate 75 SP / liter of water for controlling sucking pest in chilli.
- **Animal Husbandry**
 - In Kerala, there are more chances of contagious disease in cattle. Take vaccination from near by veterinary clinics.
 - In Karnataka, keep the animal sheds dry to avoid hoof infection & to prevent fly. Protect animals from rain. Maintain the optimum room temperature in sericulture, poultry and dairy unit by providing electric bulb. For milch animals, regularly follow schedule of 1 kg feed + 50 g mineral mixture per 2 litres of milk yield.
 - In Andhra Pradesh, vaccinate cattle against FMD and goat against blue tongue disease.
 - In Tamilnadu, present weather is conducive for mastitis infection in dairy animals. Hence, before and after milking wash the udder with potassium permanganate solution.

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

Realised Rainfall : Rainfall occurred in Kurung Kumey district of Arunachal Pradesh; Kokrajhar district of Assam and South Garo Hills districts of Meghalaya during the week. Weather remained mainly dry over rest of the region.

- **Advisories:**

- **Arunachal Pradesh:**

- Undertake harvesting of matured black gram. Take up harvesting of tomato.
- Continue harvesting of early transplanted matured kharif rice and Jhum rice. Continue sowing of pea/gram in rice fallow and transplanting of rabi vegetables.

- **Assam:**

- Continue land preparation sowing of rabi pulses and oil seeds. Continue land preparation for onion and toria cultivation, sowing of recommended varieties of Rabi maize, pea and tomato. Continue planting of potato and land preparation and sowing of toria. Select sandy loam soil rich in organic matter for cultivation of potato. Recommended varieties for potato are Kufri Chandramukhi, Kufri Joyti and Kufri Sindhuri. Continue early sowing of seeds of rapeseed and mustard to avoid Aphid infestation during flowering stage. Transplant seedlings of cauliflower, knolkhol, tomato, brinjal and radish in the main field at 30-35 DAS. Undertake sowing of rapeseed and mustard, lentil. Complete sowing of garlic at the earliest. Undertake land preparation for sowing of wheat in Central Brahmaputra Valley Zone of Assam.
- If there is attack of hispa in Sali rice, spray Chloropyriphos 20 EC and for leaf folder attack, spray Quinalphos 25 EC @ 2.5-3 ml per litre of water. For pod borer attack in red gram and green gram, spray Quinalphos @ 2.5 ml/litre of water followed by Dimethoate @ 2ml/litre of water at 10 days interval.
- Due to favourable weather incidence and spread of Gundhi bug is observed in Sali rice at milking stage. Since clear with rain free weather is predicted in the coming 5 days, spray Malathion 5% dust @ 3kg per bigha to control the pest. In present weather condition in maize crop, apply Carbofuran 3% G or Phorate 10 % G @ 8 kg/acre against stem borer if insect population is above ETL,

- **Meghalaya:**

- Undertake transplanting of cole crops, root crops and cucurbits. Carry out harvesting of tender French bean and cow pea. Harvest brinjal and chilli regularly. Maintain 5 cm of standing water in rice fields. Keep the field free of weeds. Carry out weeding in ginger and turmeric fields.
- Spray Hexaconazole @ 1ml/litre of water at 15 days interval foe sheath blight and sheath rot in Sali paddy.

- **Manipur:**

- Harvest rice crop when 80% of spikelets become yellow. Drain out water from the crop field 10-15 days before expected date of harvesting. Prepare land for planting of potato. Take up sowing of mustard and rapeseed just after harvesting of rice, soybean, groundnut, black gram, rice bean etc.

- **Mizoram:**

- Undertake harvesting of Upland rice, sowing of radish and leafy mustard and nursery preparation of tomato, crucifer, onion, brinjal and chilli.
- Due to high humidity the problem of citrus canker get aggravated in acid lime leading to excessive fruit drop. Spray copper oxychloride 180 gms with Spreptocycline 6 gms in 60 liters of water to control canker on a non rainy day.

- **Tripura:**

- Continue harvesting of maize. Continue transplanting of cabbage, cauliflower, radish and brinjal. Keep cucurbit field weed free.
- For blast disease in Aman rice at panicle emergence stage, apply combination of Carbendazim and Mancozeb @ 1.5 gm per litter of water as prophylactic measure. In case of severe attack apply Tricyclazole 0.8 gm or Propiconazole 1 ml per litter of water. Repeat the application at 10 to 12 days interval if needed.

- **Nagaland:**

- Complete sowing of rabi maize, toria and mustard. Undertake land preparation for transplanting of vegetable crops like cabbage, tomato, radish and broccoli. Undertake harvesting of soybean.
- For management of blast disease in TRC/WRC rice, destroy the infested residue, stubbles, grass and

weeds present in the bunds of the field as they act as a source for the infection.

- **Animal Husbandry**

- In Assam, the weather condition is favourable for infestation of round worm, flukes and tapeworms in cattle. De-worming may be done under recommendation and supervision of authorized practitioner.
- In North Eastern States, go for normal vaccination schedule against Ranikhet and Gumboro diseases in Broiler. Vaccinate pigs against FMD & swine fever and cattle/sheep/goat against FMD, Hemorrhagic Septicaemia, Black Quarter, etc.

- **Fishery**

- In Assam, maintain water level at a depth of 1m to 1.5m. Ensure good quality water in fish culture ponds by liming. Encircle fish culture ponds using happa net avoid escape of grown-out fishes.

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

Realised Rainfall: Rainfall occurred in all districts of Andaman & Nicobar Islands and in North Sikkim district of Sub-Himalayan West Bengal & Sikkim during the week. Weather remained mainly dry over rest of the region.

- **Advisories:**

- As rain/thundershowers likely at many places over Andaman & Nicobar Islands on 26th and 27th October, heavy rain likely at isolated places over Coastal Odisha on 29th and over Gangetic West Bengal on 29th & 30th October, avoid irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places.

- **Odisha:**

- Keep optimum water level in paddy fields till grain filling stage. Strengthen the field bunds to prevent loss of water. Carry out harvesting of matured rice, pulses and groundnut in clear weather. Take up planting of vegetables like cauliflower, cabbage beans, cowpea, etc. Carry out harvesting of mature groundnut crop. Prepare main field for sowing of rabi groundnut in uplands. It is the optimum time for sowing sunflower and onion. Undertake sowing of Green gram.
- To control stem borer in paddy, spray of Flubendiamide 50ml/acre @ 0.25ml/litre water or Chlorantraniliprole 80ml/acre @ 0.4ml/litre of water or Cartrap Hydrochloride 400g @ 2g/litre water during afternoon hours. In case of fruit and shoot borer infestation in vegetable crops, apply Rynaxypyr 20SC @ 60 ml/acre or keep 25 pheromone traps per acre.

- **Bihar:**

- Continue land preparation for timely sowing of rabi crops such as lentil, pea, onion, garlic, coriander, sunflower, rajma and methi. Continue transplanting of brinjal, tomato, chilli, cauliflower and cabbage on a raised bed. Complete the sowing of mustard and rapeseed at the earliest and take up thinning after germination. In the areas where paddy crop is about to mature, irrigation should be stopped two weeks before harvesting. After harvesting crop should be dried in the field for 2-3 days and there after threshing should be done. Grains should be properly dried to right moisture level before storing.
- Monitoring of gundhi bug is advised in rice crop. If the number of pest exceeds from ETL value, apply Quinalphos 1.5 % or Methyl Parathion 2% or Folidol dust @ 25 kg per ha to protect the crop. For the paddy crop which is at dough or late dough stage, monitor brown plant hopper (BPH) and if necessary, spray Imidacloprid 17.8 % SC @ 1.0 ml / 3 liters of water.

- **Jharkhand:**

- Farmers having 3-4 irrigation facility may go for cultivation of wheat, potato and table pea. Those who have only 2-3 irrigation facility may go for toria cultivation. Undertake sowing of gram, mustard, lentil and linseed. Take up cultivation of low water requirement vegetables like tomato, brinjal, capsicum, cauliflower, potato and onion by adopting water conservation techniques like mulching and drip method. Take up cultivation of short duration vegetables like Bodi, Frenchbean, leafy vegetables, etc. Maintain moisture level in paddy field during panicle initiation to milking stage. Apply irrigation whenever needed.
- To control gundhi bug in rice, apply Quinalphos 1.5% dust @ 25 kg/ha or spray Quinalphos 25 EC @ 1.5 litre/500 litres of water. Apply three alternate sprayings of Endoxcarb or Spinosad or Dhawan gold @ 1.5 to 2 ml / liter of water for pod borer in pigeon pea at 50% flowering stage.

- **West Bengal:**

- In Sub-Himalayan West Bengal, complete the harvesting of mature capsules of large cardamom capsules. Continue harvesting round chilli. Carry out weeding in soybean field. Carry out earthing up, weeding in ginger and turmeric fields and roguing of infected ginger and turmeric plants. Provide irrigation to rice crop at flowering stage as per the requirement.
- In Gangetic West Bengal, remove water from the matured rice fields. Harvest rice crop as early as possible when 80% grains in a panicle are matured. Keep the rice bundles in the field for few days for sun drying. After the harvest of rice crop, field should be ploughed with one deep ploughing followed by 2-3 general ploughings and planking to get the well pulverized seedbed for sowing of wheat or potato crops. Prepare land for sowing of early mustard variety like agrani, panchali etc. Prepare nursery bed to raise seedlings of tomato. Prepare field for planting of vine cuttings of pointed gourd.
- In Sub-Himalayan West Bengal, for control of mealy bug attack in Aman paddy, spray Chlorpyrifos 2 ml/litre of water. For collection and destruction of fruit fly in cucurbit crops, place pheromone traps @ 2 per bigha. For Aphid, hoppers, white fly and thrips in chilli crop, apply Imidacloprid 17.8 SL@1ml/5 litres or Thiomethoxam 0.3 SG 1g/3 litres of water. Spray Tricyclazole 75% WP @ 0.5 gm/litre of water (if not sprayed earlier) as a preventive measure to manage the blast disease.
- In Gangetic West Bengal, spray Bavistin @ 1.5-2 g/litre of water at clear weather condition for yellowing of leaves in tomato and brinjal crops. If population of leaf folder or stem borer in kharif rice is above ETL, broadcast of Cartap 4% granules or Carbofuran 3% G @ 10 kg/acre or Chlorpyrifos 20 EC @ 2 ml/ litre of water for effective control on a non rainy day.

- **Andaman & Nicobar Islands:**

- In Andaman Islands, setup light traps in rice field to attract borer moths during night time as the weather is conducive for its spread. To control pod borer in cowpea, spray Carbaryl @ 2 ml/litre of water with onset of flowering and spray three times at weekly intervals.
- In the Nicobar Islands, plant marigold in kitchen garden as trap crops to reduce the pest attack in other vegetable crops.

- **Animal Husbandry**

- In Odisha, keep animal sheds clean and dry and disinfect them by doing fumigation and white washing with lime. Provide adequate, clean drinking water and sufficient green forage to the animals. Carry out timely de-worming. Calves above three months and sheep and goat above two months should be vaccinated against Foot and Mouth disease.
- In Bihar, vaccinate animals against FMD, HS and BQ. Make arrangements for proper sunlight and air in poultry house. Provide clean water to birds.
- In Jharkhand, vaccinate small ruminants against Sheep pox disease affects mostly young ones under 1 year age. Control external parasites by maintaining clean and neat conditions in the shed.
- In West Bengal, for foot and mouth disease in cattle, wash the wound with potassium permanganate solution. Vaccinate cattle against FMD. Keep the cow shed clean and dry. To prevent fungal attack in poultry shed, rearrange the litter with new one, apply lime on litter, avoid wet food and feed only dry food to birds. Vaccinate poultry birds against Ranikhet disease. Goat kids lose body energy very rapidly when exposed to cold or wet environment and may become weak or die. Ensure good management practices and feeding during this season.
- In Andaman & Nicobar Islands, to cure anaemia in piglet, provide ferrous sulphate @ 0.5 kg dissolved in 10 litres of hot water.

- **Fisheries**

- In Odisha, apply raw cow dung (RCD) @1000kg/acre of pond size. Five days after the application of RCD, apply 30 kg of DAP/acre. After 3 days of application of DAP, carry out stocking @ 2000 yearlings/acre OR fingerlings @ 3000/acre OR Fry @ 8000/acre of pond size.
- In West Bengal, apply 25-30kg lime per bigha. Keep the water clean. Netting should be done for better growth.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Realised Rainfall: Rainfall occurred in North Goa, Raigad and Ratnagiri districts of Konkan & Goa during the week. Weather remained mainly dry/dry over rest of the region.

- **Advisories:**

- **Maharashtra:**

- In Konkan, continue harvesting of early varieties of rice. Keep the harvested produce in safer place, continue sowing of kulthi, chavli and wal, continue harvesting of finger millet. Continue nursery bed preparation for vegetables like brinjal, tomato, chilli, knol-khol and cabbage. There are chances of incidence of mango hopper on new flush of mango, if found spray Deltamethrin 2.8% EC (0.9 ml per liter of water) or Thiomethoxam 25% WDG (0.1 gram per liter of water). Provide regular irrigation to onion nursery.
- In Madhya Maharashtra, undertake harvesting of matured early varieties of rice. Keep the harvested produce in safer place. Continue planting of rangada onion till last week of October. Under sufficient residual soil moisture, continue sowing of chickpea. undertake sowing of fodder crops like lucerne grass, berseem, oat, sorghum, maize for animals where irrigation facility is available.
- In Marathwada, apply protective irrigation in pigeon pea crop as per availability of water. As per availability of water, continue sowing of rabi sorghum. Sowing of chickpea and safflower crop should be done after irrigating the fields.
- In Vidarbha, apply protective irrigation to vegetables and orchards. Wherever possible, need based protective irrigation is advised during morning/evening hours to avoid moisture stress in rainfed cotton. If irrigation is not possible undertake foliar spray of 1% KNO₃ or 1.5% sulphate of potash for moisture stress tolerance and boll development. Avoid spraying at burst bolls. If possible light hoeing can be undertaken to provide dust mulch to break soil capillarity reducing evaporative loss of soil moisture. Continue sowing of rabi crops like linseed and safflower upto last week of October with assured irrigation facilities. Continue sowing of rainfed chickpea up to second fortnight of October with assured irrigation facilities. Undertake harvesting of matured late sown soyabean.
- In Konkan, there are chances of incidence of attack of Tea mosquito bug on new flush and flower of cashew. If found spray Monocrotophos 36% EC @ 15 ml or Lambdasayhalothrin 5% EC @ 6 ml in 10 liters of water.
- In Madhya Maharashtra, to control fall army worm in maize, spray Quinolphos 25 EC @ 20 ml or Chloropyrifos 20% conc. @ 25 ml or Psypermethrine 25 EC @ 4 ml per 10 liters of water.
- In Marathwada, to control tur pod borer in pigeonpea crop, use Pheromone traps @ 5 per acre during bud initiation stage or Spray 5 % Neem seed kernel extract (NSKE) or spray Emamectin benzoate 5 % @ 80 ml per acre.

- **Gujarat:**

- In North Gujarat, complete land preparation and undertake sowing of mustard, fennel and carrot crops. Complete harvesting of groundnut, sesame, bajra, maize, cow pea and green gram crops.
- In Middle Gujarat, undertake harvesting of matured groundnut crop. Complete harvesting of matured pearl millet and rice crops. Carry out intercultural operations in cotton, castor, cluster bean and vegetable crops. Apply irrigation in pigeon pea and cluster bean crop as per need.
- In Saurashtra & Kutch, continue sowing of rabi mustard, sorghum, garlic, chickpea where irrigation facility is available. Wherever possible, undertake mulching using dry grass, crop residues etc. to conserve soil moisture. Apply irrigation to vegetable crops. Complete harvesting of matured groundnut, sesame, soybean, bajara, green gram and black gram crops.
- In South Gujarat, undertake harvesting of matured rice and pulses. Continue planting of sugarcane. Carry out mulching in vegetable crops using fodder/plastic mulch to conserve moisture.
- In South Gujarat, for control of stem rot in banana drenching with Carbendazim 0.05% @ 1 gm/liter of water is advised.
- In North Gujarat, present temperature and humidity conditions favour infestation of thrips, jassid and mealy bug in cluster bean crop; to control, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 6 g in 10 litres of water in clear weather.

CENTRAL INDIA [M.P., CHHATTISGARH]

Realised Rainfall: Weather remained mainly dry over the region.

- **Advisories:**

- **Madhya Pradesh:**

- In West Madhya Pradesh, continue nursery preparation for rabi vegetables. Continue sowing of pea, garlic and planting of potato. Continue field preparation for sowing of wheat. Continue sowing of gram and mustard at optimum soil moisture conditions. Undertake planting of sugarcane. Continue harvesting of pearl millet, green gram, black gram, soybean and vegetables.
- In East Madhya Pradesh, continue harvesting of matured soybean and groundnut. Continue sowing of gram, safflower, linseed, mustard and toria. Undertake sowing of early varieties of pea and garlic. Continue nursery preparation for vegetables. Continue planting of horticultural crops like papaya, mango, guava etc. In Bundelkhand Zone, continue transplanting of tomato, chilli, brinjal, cauliflower and cabbage. Continue sowing of radish, fenugreek, spinach, mustard, coriander and turnip. Keep inputs ready for seedbed preparation of onion and planting of potato. Continue sowing of early varieties of pea.
- In Kymore Plateau and Satpura Hill Zone, continue harvesting of matured soybean, green gram, black gram and rice. Continue nursery preparation for early season rabi vegetables. Continue sowing of pea. Continue sowing of carrot, beetroot, radish, spinach, fenugreek and planting of potato.
- In Central Narmada Valley Zone, vegetables crops may get infested by powdery mildew disease for its control spray 80% water soluble Sulphur @ 20 g per 10 litres of water.

- **Chhattisgarh:**

- Continue transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. Continue harvesting of matured crops like mung, urad, maize, rice, groundnut, finger millet etc. Continue sowing of rabi crops like gram, linseed, lentil, toria, mustard, green pea and potato and arrange seeds & fertilizer for cultivation of rainfed wheat, if having assured irrigation facility. Continue planting of banana, papaya, mango, guava etc. In Plain Zone, continue sowing of carrot and turnip. Continue seed bed preparation for onion.
 - In Bastar Plateau Zone, continue harvesting of early varieties of rice. Continue sowing of toria. Continue nursery preparation for papaya and custard apple. Continue nursery preparation for rabi vegetables. Continue field preparation for sowing of rabi crops.
 - In Bastar Plateau Zone, for control of Blast disease in paddy crop, spray Tricyclozole @ 6 g/10 litres of water or Propiconazole @ 1ml/litre of water.
- **Animal Husbandry**
 - In Madhya Pradesh, provide clean and fresh water two times a day. Provide 35-40 gm mineral mixture per animal as supplement & green fodder 25 kg/cattle/day.
 - In Chhattisgarh, provide concentrate feed to milch animals mixed 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: Weather remained mainly dry over the region.

- **Advisories:**

- **Jammu & Kashmir:**

- Undertake harvesting of semi-fine rice cultivars which have attained maturity in Sub-Tropical Zone. Stop irrigation of early sown Basmati rice, as the grains turn golden in colour. Apply irrigation in late transplanted Basmati crop at milking stage. Undertake sowing of pea, chick pea and lentil.
- Apply irrigation to 25-30 days old toria crop. Top dress it with the remaining dose of nitrogen. Carry out hoeing and weeding in 15-20 days old crop to provide proper spacing and moisture conservation.
- Undertake sowing of mustard. Treat the seed with captan or thiram @ 3g/kg seed before sowing for management of alternaria blight, white rust and downy mildew. Apply whole quantity of phosphorus, potassium, sulphur and half of nitrogen at the time of sowing.
- Undertake transplanting of all cole crops like knol khol, cabbage, cauliflower and broccoli at the earliest.

- **Uttarakhand:**

- Continue sowing of mustard. Continue harvesting of early and medium varieties of rice. Continue sowing of toria, pea, radish, broccoli and turnip. Continue field preparation for planting of early varieties of potato. Continue transplanting of cabbage and cauliflower. Continue picking up of matured cucurbits. Undertake sowing of wheat. Continue harvesting of matured black gram and soybean.
- In Hill Zone, continue sowing of pea and toria. Undertake sowing of wheat. Continue harvesting of matured rice, maize, green gram, black gram. Continue nursery sowing of onion. Continue cultivation of mushroom. Continue hoeing in vegetable pea, cabbage, fenugreek, spinach etc. Continue field preparation for sowing of rabi crops.
- To control the root and stem joint rot disease in tomato and chilli, irrigate the roots of the crops with the solution of Trichoderma @ 10 g/litre or Carbendazim @ 1g/litre of water.

- **Himachal Pradesh:**

- Undertake sowing of carrot, radish, spinach and turnip in mid hill region.
- Prepare the FYM for the sowing of white button mushroom in low and mid hills regions and prepare the medium for the sowing of Dhingri family Mushrooms. Also start the production of Stalk Mushrooms on sawdust bed.
- To protect tomato from late blight disease, spray Redomil Gold and Saimokjnal Menkojeb (Carzate M-8) @37.5gram in 15 litre of water at in interval of 7-10 days.

- **Punjab, Haryana & Delhi:**

- In Punjab, undertake land preparation and sowing of mustard, raya and wheat. Continue harvesting of matured maize, green gram. Continue planting of early varieties of potato and pea. Complete sowing of spinach, radish, turnip and carrot. Continue planting of early varieties of sugarcane. Continue planting of seedlings of onion. Continue nursery sowing of tomato. Continue picking up of matured cotton bolls. Undertake harvesting of matured rice.
- In Haryana, continue intercultural operations in vegetables. Continue field preparation for sowing of mustard. Continue harvesting of timely sown bajra, guar, green gram, black gram and picking up of matured cotton bolls. Undertake harvesting of matured rice.
- In Delhi, continue harvesting of matured rice. Continue planting of winter sugarcane at optimum soil moisture for better seed germination. Continue sowing of gram and sowing of garlic on raised bed. Continue sowing early mustard, pea and planting of early potato. Continue transplanting of onion. Continue sowing of sarsonsaag, radish, spinach, coriander. Continue transplanting of cauliflower, cabbage, broccoli and tomato. Continue sowing of carrot on raised bed. Continue field preparation for sowing of wheat.
- In Undulating Plain Zone due to hot & humid weather may increase infestation of hairy caterpillar in moong & mash. Spray Ekalux 25 EC (Quinalphos) @ 500 mL/acre in 80-100 L of water. Dry weather may increase whitefly population, spray 600 mL of Trizophos 40 EC or 250 mL of Rogor 30 EC.

- **Uttar Pradesh:**

- In East Uttar Pradesh, undertake sowing of wheat varieties like K-9644, HD-2888, Mandakini-K9351, KRL-210, KRL-213 etc. Keep inputs ready for sowing of 'Kathia' wheat varieties.
- In West Uttar Pradesh, undertake transplanting of mature seedlings of cauliflower, cabbage, broccoli and tomato in raised bed. Undertake planting of potato recommended varieties. This is suitable time for sowing of pea after treating seeds with fungicides, Captan or Thiram @ 2.0 gm/ kg and after that with crop-specific Rhizobium culture. Take up sowing of carrot in raised bed with recommended cultivars like Pusa Rudhira, , Pusa Asita. after necessary seed treatment with Captan @ 2 gm per kilogram. This is suitable time for sowing of Sarson Saag with recommended varieties.
- In West Uttar Pradesh, for monitoring of fruit borer and diamond back moth in vegetables like brinjal, chilli, cauliflower, cabbage, tomato etc. use pheromone trap @ 3-4/acre. If insect population is above ETL, spray Spinosad 1.0 ml/4 litre of water.

- **Rajasthan:**

- In Arid western Plain zone, weather conditions are becoming favourable for sowing of mustard and gram. Therefore, arrange seed, fertilizer and chemicals for seed treatment for sowing. Also, harvest mature groundnut and undertake sowing of garlic.
- In East Rajasthan, undertake field preparation for sowing of barley. Continue sowing of radish and

carrot. Continue nursery preparation for rabi vegetables like chilli, brinjal, tomato, cabbage and cauliflower. Continue sowing of early pea, gram and mustard. Continue planting of fruit crops like mango, plum, pomegranate, aonla etc. Continue harvesting of matured maize, black gram, green gram and soybean. Undertake harvesting of matured groundnut.

- Complete sowing of gram and mustard in Sub Humid Southern Plain and Aravali Hill Zone. Also prepare field for sowing of wheat.
- In Irrigated North Western Plain Zone, farmers are advised to spray Carbendazim 50 W.P. @ 1 g/litre or Propineb 70 W.P.@ 2 g/litre of water to control fruit dropping in kinnow orchard.

The Agromet Products in this Bulletin are generated by Agrimet Division, weather forecast issued by NWFC, New Delhi and Agromet Advisories are prepared based on the DAAS Bulletins issued by different Agrometeorological Field Units.