



National Agromet Advisory Service Bulletin



Friday 6th January 2017
(For the period 6th to 10th January 2017)

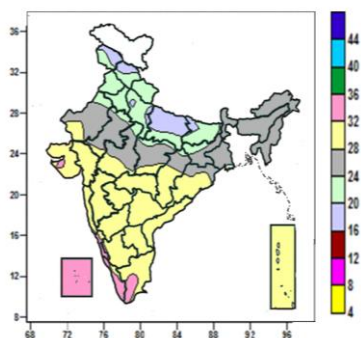


Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.

Weblink For
District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>
State Composite AAS Bulletin: <http://www.imdagrimet.gov.in/node/3544>

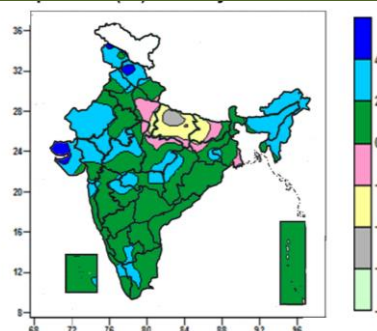
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 04.01.2017

Actual Mean Maximum Temperature (°C) in India for the week ending 04.01.2017



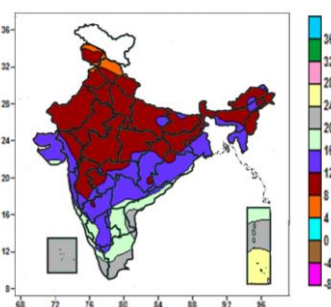
- Mean maximum temperature was between 32 to 36°C over Lakshadweep, many parts of Coastal Karnataka, Kerala, some parts of Tamil Nadu and isolated pockets of Saurashtra and South Interior Karnataka.
- Mean maximum temperature was between 24 to 32°C over rest of the Country except Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Uttar Pradesh, many parts of Bihar, some parts of Jharkhand and isolated pockets of Rajasthan, Madhya Pradesh, Chhattisgarh and Gangetic West Bengal, where it was between 16 to 24°C.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 04.01.2017



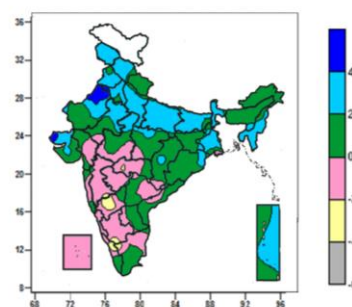
- Mean maximum temperature was above normal by 4 to 6°C over some parts of Himachal Pradesh, Saurashtra & Kutch and isolated pockets of Jammu & Kashmir.
- Mean maximum temperature was above normal by 2 to 4°C over Arunachal Pradesh, Meghalaya, Nagaland, Manipur, many parts of Jammu & Kashmir, Himachal Pradesh, Assam, Mizoram, West Rajasthan, Gujarat, some parts of Punjab, Tripura, East Rajasthan, Madhya Pradesh, Chhattisgarh, Vidarbha, Marathwada, Konkan, South Interior Karnataka, Kerala, Tamil Nadu and isolated pockets of Uttarakhand, Haryana, Jharkhand, Gangetic West Bengal, Madhya Maharashtra and Lakshadweep.
- It was normal to near normal over rest of the country except many parts of Uttar Pradesh, some parts of Bihar and isolated pockets of Jharkhand, where it was below normal by 2 to 6°C.

Actual Mean Minimum Temperature (°C) in India for the week ending 04.01.2017



- Mean minimum temperature was between 4 to 8°C over many parts of Himachal Pradesh, some parts of Jammu & Kashmir and isolated pocket of Uttarakhand and Punjab.
- Mean minimum temperature was between 8 to 12°C over Haryana & Delhi, West Uttar Pradesh, Sikkim, Manipur, Rajasthan, West Madhya Pradesh, many parts of Jammu & Kashmir, Uttarakhand, Sub-Himalayan West Bengal, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Punjab, East Uttar Pradesh, Bihar, Jharkhand, Gujarat Region, East Madhya Pradesh, Madhya Maharashtra, Marathwada, some parts of Himachal Pradesh, Chhattisgarh, Vidarbha and isolated pockets of Gangetic West Bengal, Odisha, Konkan & Goa and North Interior.

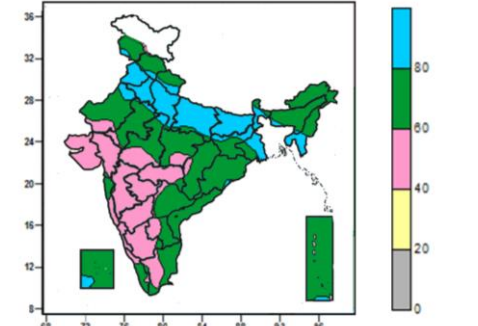
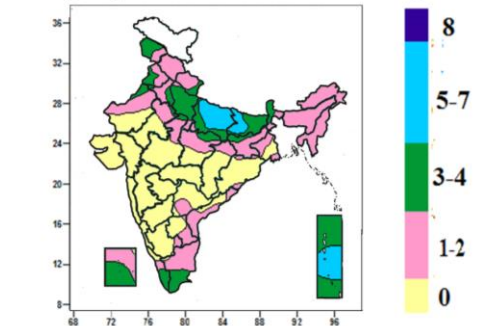
Mean Minimum Temperature (°C) Anomaly in India for the week ending 04.01.2017



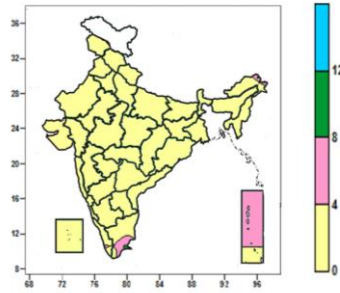
- Mean minimum temperature was above normal by 4 to 6°C over some parts of West Rajasthan and isolated pockets of Haryana and Kutch.
- Mean minimum temperature was above normal by 2 to 4°C over Jammu & Kashmir, Mizoram, Tripura, many parts of Himachal Pradesh, Manipur, Punjab, Haryana & Delhi, Uttar Pradesh, Bihar, Sikkim, West Bengal, Andaman & Nicobar Islands, some parts of Rajasthan, Madhya Pradesh, Saurashtra & Kutch and isolated pockets of Assam, Jharkhand, Chhattisgarh and Odisha.
- Mean minimum temperature was normal to near normal over rest of the country except some parts of North Interior Karnataka and isolated pockets of Vidarbha, Madhya Maharashtra, South Interior.

<p>Karnataka.</p> <ul style="list-style-type: none"> • Mean minimum temperature was between 12 to 16⁰C over Mizoram, Tripura, many parts of Saurashtra & Kutch, Konkan & Goa, Vidarbha, Chhattisgarh, Odisha, Gangetic West Bengal, Interior Karnataka, Telangana, some parts of Assam & Meghalaya, Gujarat Region, East Madhya Pradesh, Madhya Maharashtra, Marathwada and isolated pockets of East Uttar Pradesh, Bihar, Sub-Himalayan West Bengal, Arunachal Pradesh, Coastal Andhra Pradesh, Coastal Karnataka, Kerala and Tamil Nadu. • Mean minimum temperature was between 16 to 24⁰C over rest of the Country except some parts of Andaman & Nicobar Islands, where it was between 24 to 28⁰C. 	<p>Karnataka, Tamil Nadu and Kerala where it was below normal by 2 to 4⁰C.</p>
---	---

Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 04.01.2017

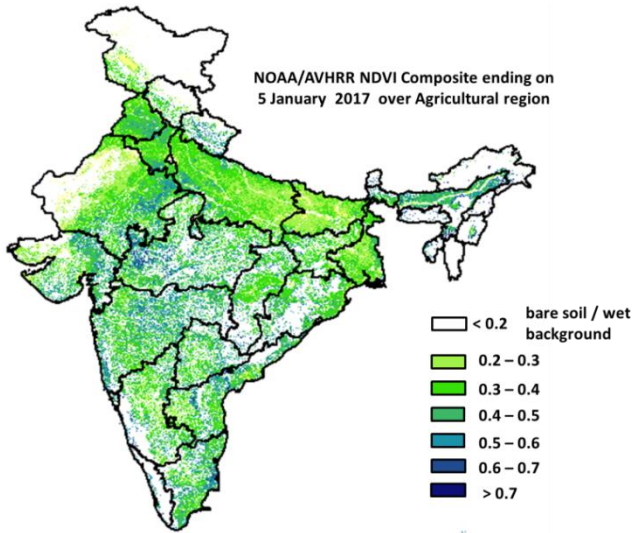
<p>Relative Humidity (%) over India for the week ending 04.01.2017</p>	<p>Cloud amount (okta) over India for the week ending 04.01.2017</p>
	
<ul style="list-style-type: none"> • Mean Relative Humidity was above 80% over Mizoram, Tripura, Punjab, Haryana & Delhi, Bihar, many parts of Uttar Pradesh, West Bengal, some parts of Uttarakhand, Jharkhand and isolated pockets of Jammu & Kashmir, Himachal Pradesh, Assam & Meghalaya, Rajasthan, West Madhya Pradesh, Odisha, Lakshadweep and Andaman & Nicobar Islands. • Mean Relative Humidity was between 60 to 80% over Arunachal Pradesh, Nagaland, Manipur, Coastal Andhra Pradesh, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Assam & Meghalaya, Rajasthan, Madhya Pradesh, Jharkhand, Chhattisgarh, Odisha, Telangana, Rayalaseema, Kerala, Tamil Nadu, Lakshadweep, Andaman & Nicobar Islands, some parts of West Bengal, Vidarbha, Konkan and isolated pockets of Uttar Pradesh, Gujarat Region, Madhya Maharashtra and South Interior Karnataka. • Mean Relative Humidity was between 40 to 60% over rest of the Country. 	<ul style="list-style-type: none"> • Sky remained generally cloudy (5-7okta) over many parts of East Uttar Pradesh, some parts of Bihar and Andaman & Nicobar Islands. • Sky remained generally cloudy (3-4 okta) over Sikkim, many parts of Jammu & Kashmir, West Uttar Pradesh, Bihar, Andaman & Nicobar Islands, some parts of Punjab, Haryana & Delhi, East Uttar Pradesh, Jharkhand, Sub-Himalayan West Bengal, East Madhya Pradesh, Lakshadweep, Kerala and Tamil Nadu and isolated pockets of Rajasthan and West Madhya Pradesh. • Sky remained mainly clear/clear sky (1-2 okta/0 okta) over rest of the country.

Wind speed (knots) over India for the week ending 04.01.2017



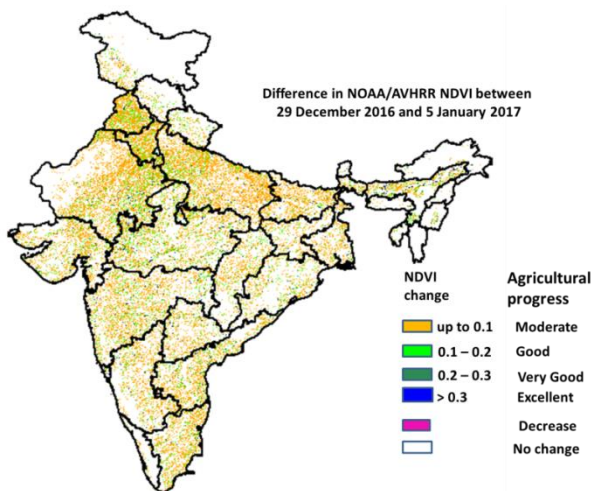
- Mean wind speed was between 8 to 12 knots over isolated pocket of Tamil Nadu.
- Mean wind speed was between 0 to 4 knots over rest of the Country except many parts of Andaman & Nicobar Islands, some parts of Tamil Nadu and isolated pockets of Arunachal Pradesh and Kerala, where it was between 4 to 8 knots.

NOAA/AVHRR NDVI composite ending on 5th January 2017 over Agricultural region of India



- Agricultural vigour is good in east Madhya Pradesh, Vidarbha, patches in North Interior Karnataka, Kerala, Telangana, North Andhra Pradesh, Gujarat, patches in West Rajasthan, Uttarakhand and North-east, where NDVI value varies from 0.5 to 0.7. NDVI is moderate in Rajasthan, Punjab, Haryana, West Madhya Pradesh, Uttar Pradesh, Madhya Maharashtra, southern parts of Andhra Pradesh, Karnataka and Tamil Nadu (NDVI 0.2 to 0.5).

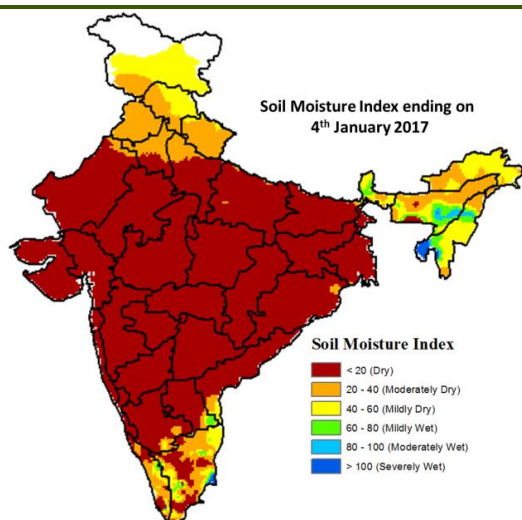
Difference in NOAA/AVHRR NDVI between 29th December 2016 and 5th January 2017



- Moderate progress in NDVI was observed in Punjab, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh, patches in Bihar, Maharashtra, Gujarat, Karnataka, Kerala, Tamil Nadu, Telangana, North-East Region, Odisha, West Bengal, Chhattisgarh. Good progress was observed in few patches of Punjab, West Rajasthan, Haryana, West Uttar Pradesh.

- NOAA/AVHRR NDVI composite maps for the week ending on 5th January 2017 for different States are given in Annexure II.

Soil Moisture Index for the week ending on 4th January 2017



- Soil moisture index indicates severely and moderately wet condition in some parts of Tamil Nadu, North-East Region. Mild wet condition in some parts of North-East Region, Sub-Himalayan West Bengal, Kerala, Tamil Nadu and Rayalaseema. Mild dry in many parts of Jammu & Kashmir, Himachal Pradesh, Sub-Himalayan West Bengal, North-East Region and some parts of Andhra Pradesh, Kerala and Tamil Nadu. Rest of the country shows moderate dry and dry condition.

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

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- No significant change in minimum temperature very likely over northwest India during next 2 days and gradual fall by 2-4°C thereafter. No significant change in maximum temperature very likely over northwest India and adjoining central India during next 24 hours and fall by 2-3°C thereafter.
- No significant change in minimum temperature very likely over Gujarat region during next 24 hours and fall by 2-4°C thereafter.
- No significant change in temperatures very likely over the rest of the country.

5 Day Rainfall Forecast (MID DAY) 6th January 2017

Met Sub-divisions	06 Jan	07 Jan	08Jan	09 Jan	10 Jan
1. Andaman & Nicobar Islands	WS	WS	WS	FWS	SCT
2. Arunachal Pradesh	DRY	DRY	DRY	DRY	DRY
3. Assam & Meghalaya	DRY	DRY	DRY	DRY	DRY
4. N.M.M. & T.	DRY	DRY	DRY	DRY	DRY
5. S.H. West Bengal & Sikkim	DRY	DRY	DRY	DRY	DRY
6. Gangetic West Bengal	DRY	DRY	DRY	DRY	DRY
7. Odisha	DRY	DRY	DRY	DRY	DRY
8. Jharkhand	DRY	DRY	DRY	DRY	DRY
9. Bihar	DRY	DRY	DRY	DRY	DRY
10. East Uttar Pradesh	DRY	ISOL	DRY	DRY	DRY
11. West Uttar Pradesh	ISOL	ISOL	DRY	DRY	DRY
12. Uttarakhand	SCT	WS	SCT	ISOL	DRY
13. Haryana, Chd & Delhi	FWS	FWS	ISOL	DRY	DRY
14. Punjab	FWS	FWS	ISOL	DRY	DRY
15. Himachal Pradesh	WS	WS	FWS	ISOL	DRY
16. Jammu & Kashmir	WS	WS	FWS	ISOL	DRY
17. West Rajasthan	ISOL	DRY	DRY	DRY	DRY
18. East Rajasthan	ISOL	ISOL	DRY	DRY	DRY
19. West Madhya Pradesh	DRY	ISOL	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. Marathwada	DRY	DRY	DRY	DRY	DRY
26. Vidarbha	DRY	DRY	DRY	DRY	DRY
27. Chhattisgarh	DRY	DRY	DRY	DRY	DRY
28. Coastal Andhra Pradesh	DRY	DRY	DRY	DRY	DRY
29. Telangana	DRY	DRY	DRY	DRY	DRY
30. Rayalaseema	DRY	DRY	DRY	DRY	DRY
31. Tamil Nadu & Puducherry	DRY	DRY	DRY	DRY	DRY
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	DRY	ISOL	ISOL	DRY	DRY
36. Lakshadweep	DRY	DRY	ISOL	ISOL	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

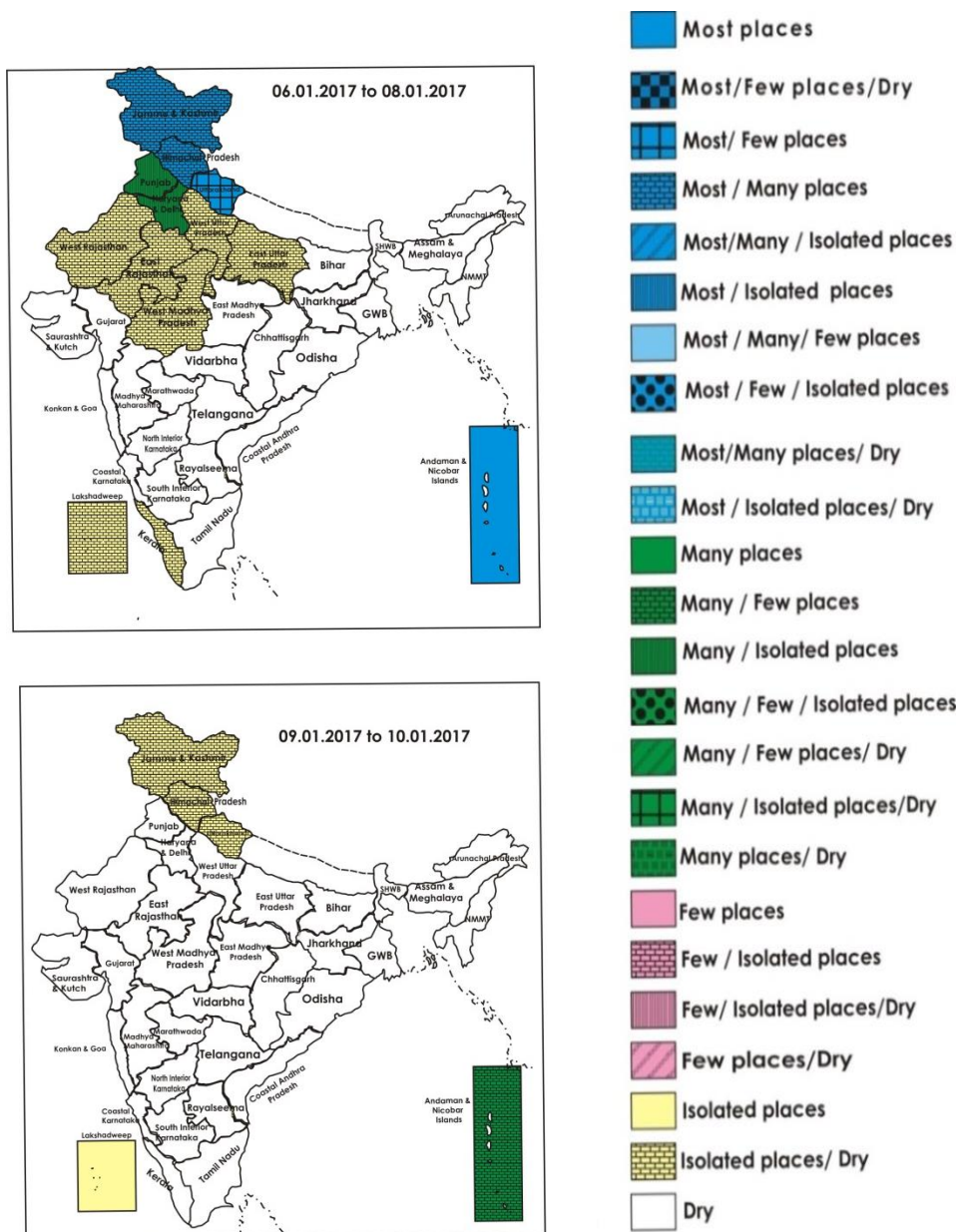
- **06 January (Day 1):** Dense fog at a few places with very dense at isolated places over East Uttar Pradesh and Bihar; dense fog at isolated places over Southwest Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Heavy rain/ snow very likely at isolated places over Jammu & Kashmir and Himachal Pradesh. Heavy rain very likely at isolated places over north Punjab, north Haryana and Andaman & Nicobar Islands. Squally wind speed reaching 25-35 kmph gusting to 45 kmph very likely over and around Andaman & Nicobar Islands. Fishermen are advised to be cautious while venturing into sea.

- **07 January (Day 2):** Dense fog at isolated places very likely over East Uttar Pradesh, Bihar, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Heavy rain/ snow very likely at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Heavy to very heavy rain very likely at isolated places over Nicobar Islands and heavy at isolated places very likely over Andaman Islands. Squally wind speed reaching 25-35 kmph gusting to 45 kmph very likely over and around Andaman & Nicobar Islands. Fishermen are advised to be cautious while venturing into sea.
- **08 January (Day 3):** Heavy rain at isolated places over Andaman & Nicobar Islands.
- **09 January (Day 4):** No weather warning.
- **10 January (Day 5):** No weather warning.

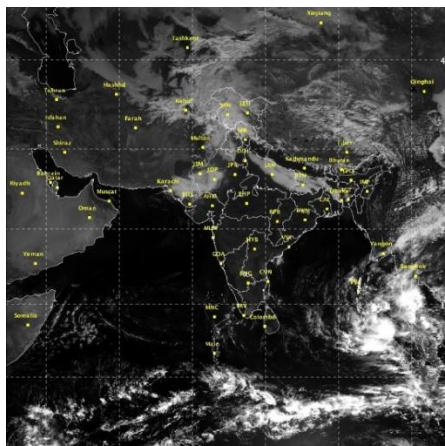
Weather Outlook for subsequent 2 days from 11th to 12th January 2017

- Rainfall at a few places very likely over and Andaman & Nicobar Islands and at isolated places likely over Lakshadweep.

Weather Forecast Map (valid upto 0830 hours of 11th January 2017)



Satellite image dated, 06.01.2017, 0600 UTC



Salient Advisories

- As rain/thundershowers likely at most/many places over **Andaman and Nicobar Islands** from 6th to 9th Jan. along with heavy rain very likely at isolated places over Andaman islands and heavy/ very heavy rainfall likely at isolated places over Nicobar islands from 6th to 8th Jan., postpone irrigation, application of fertilizers and plant protection methods to standing crops. Provide adequate drainage in standing crop fields.
- As squally wind speed reaching 25-35 kmph gusting to 45 kmph very likely over and around **Andaman and Nicobar Islands** on 6th & 7th Jan., provide support to banana and staking of vegetables, to prevent the crops from lodging due to strong winds. **Fishermen are advised to be cautious while venturing into sea during the period.**

In North, Middle & South Andaman, farmers are advised to take all the harvested rice from field to nearby shelter as heavy rainfall is expected and harvest the matured vegetables immediately.
- As rain/snow is very likely at most/many places over **Jammu & Kashmir** and **Himachal Pradesh** from 6th to 8th and over **Uttarakhand** on 7th Jan., rain/thundershowers likely at most/many places over **Haryana, Chandigarh & Delhi** and **Punjab** on 6th & 7th Jan., postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops..
- As heavy rain/ snow very likely at isolated places over **Jammu & Kashmir** and **Himachal Pradesh** on 6th & 7th and over **Uttarakhand** on 7th Jan., provide adequate drainage in standing crop fields to avoid water stagnation.
- As dense fog at a few places with very dense fog at isolated places very likely over **East Uttar Pradesh** and **Bihar** on 6th, dense fog at isolated places very likely over **East Uttar Pradesh** and **Bihar** on 7th, over **South west Uttar Pradesh** and **Sub-Himalayan West Bengal** on 6th, over **Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura** on 6th & 7th Jan., monitor potato, tomato and onion crops for early/late blight disease and wheat crop for incidence of rust. If symptoms are noticed undertake plant protection measures.
- In **West Bengal**, to protect the seedlings of *Boro* rice from cold injury, cover the nursery bed with polythene or keep stagnant water in the nursery bed especially during the night-time.
- In **Madhya Maharashtra**, as prevailing minimum temperature is around 10⁰C and no significant change is expected during next 2-3 days, apply light irrigation to sugarcane, wheat, gram, safflower, vegetables banana, grapes and fig orchards during evening hours and make smoke around the orchards early in the morning in Nasik,

Pune, Ahmednagar, Jalgaon districts.

- In North Eastern Coastal Plain Zone of **Odisha**, due to foggy weather, attack of aphids may aggravate on rapeseed and mustard crops. To control it during flowering stage, spray Neem oil 500 ppm @ 5ml/litre of water. In late sown crop, Imidacloprid can be sprayed @ 0.4ml/litre of water before flowering.
- In Laterite and Red soil Zone of **West Bengal**, low temperature favours incidence of rust disease in wheat. Spray Mancozeb 75 Wettable Powder @ 2ml/litre of water. In Old Alluvial Zone, prevailing weather condition is favourable for attack of aphids and alternaria leaf blight in mustard and late blight in potato. Spray Imidachloropid @ 2 ml/5 litre water against mustard aphids and to control Alternaria leaf blight, spray Metalaxyl + Mencozeb @ 2.5 gram per litre of water. For controlling of potato late blight, spray (Metalaxyl + Mancozeb) @ 2 gram /liter of water.

Detailed Zonewise Agromet Advisories

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



Banana



Rice



Sugarcane



Red gram

- **Realised Rainfall:** Weather remained mainly dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures departure are appreciably below normal (3.1° C to 5.0° C) at many places over Telangana; below normal (1.6°C to 3.0°C) at isolated places over Kerala and Tamilnadu. They are above normal (1.6°C to 3.0°C) at a few places over Kerala and at isolated places over Coastal Andhra Pradesh and Tamilnadu & Puducherry and near normal over rest of the region.
- **Advisories:**
 - **Andhra Pradesh:**
 - In the North Coastal Zone, undertake planting of sugarcane after sett treatment with Propiconazol @ 1.0 ml / litre of water for 15 minutes before planting and continue sowing of sesame after seed treatment with Mancozeb @ 3 g/kg seed and harvesting of rice.
 - In the High Altitude Tribal Zone, continue nursery sowing of rabi rice and harvesting of cotton and kharif rice.
 - In Krishna Godavari Zone, continue harvesting of matured early sown rice, maize, black gram crops and picking of cotton.
 - In the North Coastal Zone, apply Carbofuran 3 G granules in the whorls @ 3 kg /ac to control stem borer in maize.
 - In the Scarce Rainfall Zone of Rayalaseema, prevailing conditions are favourable for incidence of hoppers in mango. For control, spray Imidacloprid @ 0.3ml/litre + Carbendazim 1gm/litre of water. If fruits are in marble size, spray Fenthion @ 1ml/litre + Nuvan (Dichlorvos) @ 0.5ml/litre of water.
 - In the Krishna Godavari Zone, present dry weather in uplands can increase incidence of sucking complex on rabi blackgram (white fly, jassids and thrips). To control, place yellow traps @ 15-20/acre. To overcome present dry condition, spray Potassium Nitrogen @ 2% for recovery of the seedlings in late sown crop.
 - **Telangana:**
 - In South Telangana Zone, low temperatures during the *rabi* season may cause cold injury in rice nurseries. To overcome cold injury and for better nursery growth, continue covering the nursery beds with polythene sheet during night and remove in the morning, irrigate the nursery bed every day in the evening and let out the water in the morning and apply 2 kg urea for 200 sq metre nursery area 10-15 days after sowing. Apply Carbofuran 3G @ 1 kg/200 sq.m (5 cents) to rice nurseries one week before pulling nursery.
 - In North Telangana Zone, irrigate rice nurseries with fresh water in the morning to speed up nursery growth in cold weather in rice. Cover the polythene sheets entire nursery bed in the night and remove in the morning to avoid the effect of cool temperatures on germination and growth of nursery. Continue transplanting of early sown rice.
 - In South Telangana Zone, weather is congenial for incidence of hoppers and powdery mildew in mango. To control

hoppers, spray Chloropyrphos @ 2.5ml or Carbaryl @ 3 g per litre of water. To control powdery mildew, spray Wetttable Sulphur @ 3 g or Karathane @ 1 ml/ litre of water. Incidences of early blight and helicoverpa are noticed in tomatoes. To control early blight, spray Mancozeb or Chlorothalonil @ 2 g or Propiconazole @ 1 ml/litre of water 3-4 times in 15 days interval and spray Flubendiamide @ 0.3 ml/litre of water to control Helicoverpa.

- In North Telangana Zone, incidence of ragi pink borer was noticed in maize. To control, undertake whorl application of Carbofuran 3G @ 3 kg/acre at 25-30 DAS

▪ **Tamil Nadu:**

- In the Cauvery Delta Zone, Zinc deficiency is noticed in late samba / thaladi paddy fields. Continue foliar spray with 0.5 % ZnSO₄ + 1 % urea.
- In the Western Zone, considering the favourable temperature and relative humidity, planting of early season sugarcane may be initiated. Considering the low temperature, spray Zinc Sulphate @ 0.5% + Urea@ 1% to improve the growth of nursery seedlings of rice of Navarai season.
- In the South Zone, mount the soil around the base of banana tree and give support by using casuarina poles to protect the tree from high wind speed.
- In the North Western Zone, to improve drought resistance in groundnut and other crops, spray PPFM (Pink Pigmented Facultative Methylo trophic) methylo bacterium solution (200ml/200 liter of water).
- In the High Altitude Zone, undertake pruning in apple, plums, pomegranate and pear fruit bearing trees and continue necessary measures like mulching to prevent frost damage in crops due to low temperature.
- In the High Rainfall Zone, avoid moisture loss by the application of mulching in tree spices field through farm waste materials, provide irrigation to fruits and other horticultural crops and undertake propping to avoid banana bunch damage due to heavy wind.
- In the Cauvery Delta Zone, blast incidence is noticed in samba rice field due to prevailing weather condition. To control, spray Carbendazim 200g/acre or Tricylazole @ 200g/acre in 200 litres of water.
- In the Western Zone, ear head bug may appear in samba rice due to change variation in maximum and minimum temperatures . To control, dust with Methyl Parathion 2% dust @ 25kg/ha during the morning hours.
- In the South Zone, expected weather is congenial for attack of head borer in sunflower. To control, spray Dichlorvos76 EC @500 ml/ ha or spray 5% Neem oil or 5% Neem Seed Kernal extract before egg laying.

▪ **Kerala:**

- In Idukki and Wynad districts of High Altitude Zone, undertake sowing crops like amaranths, bitter gourd, cucumber, water melon, snake gourd, bottle gourd etc. and continue providing drip irrigation in coconut fields, daily irrigation in cardamom and arecanut fields and harvesting of cardamom, pepper, arecanut and ginger.
- In the Central Zone, undertake harvesting of rice (Jyothi, kanjana, Uma, Ponmani varieties).
- In Idukki and Wynad districts of High Altitude Zone, apply Dimethoate @ 2 ml/litre of water to control incidence of marginal thrips in pepper.
- In the Central Zone, spray Actara @ 2 gram/10 litres of water to control incidence of grass hopper in cow pea and Quinalphos 2 ml /litre of water to control Epilachna beetle in brinjal.
- In the Problem Area Zone, apply Fame @ 1.25 ml/ 10 litres to control fruit and pod borers in vegetables and Folicur @ 1ml/ litre of water to control powdery mildew in cucurbits.
- In Thiruvananthapuram district of the Southern Zone, spray 2% neem oil- garlic- soap emulsion to prevent leaf crinkling, brittleness/rough leaves, etc in bhindi, and spray the undersurface of coconut fronds with Quinalphos 0.05% or Malathion 0.1 % to control incidence of leaf eating caterpillar .
- In the High Altitude Zone prevailing weather is congenial for incidence of stem borer and leaf roller in seedling transplanted uma rice which is 20-35 days. To control, spray Corragen @ 3ml per litre of water or trichocards can be placed in fields.

▪ **Karnataka**

- In Southern Transition Zone, continue sowing of short duration pulses after harvesting of rice. Continue harvesting of sugarcane.
- Complete harvesting/drying of red gram and ragi in Eastern Dry Zone.
- In Bidar district of North East Transition Zone, provide protective irrigation in wheat and sorghum.
- Since dry weather is prevailing, continue harvesting/threshing /drying of onion, pigeon pea, chickpea and chilli in Vijayapura, Bagalkote and Gadag districts of North Dry Zone.
- In Southern Dry Zone, continue harvesting/threshing/drying of matured rice; apply straw as mulch or incorporate it into the soil.
- Low temperature and high humidity (RH) is congenial for the occurrence of powdery mildew in grapes in Eastern Dry Zone; if observed, spray Carbendazim @ 1 g/litre or Tridemarf @ 0.5 ml/litre.
- As a precautionary measure against leaf spot/sigatoka in banana in Southern Transition Zone, spray Carbendazim + Mancozeb (SAAF) @ 2.0 g / litre of water followed by (15 days after) Chlorothalonil @ 2 g/litre of water. Give stem injection with 5 ml Chloropyrphos or Dimethoate or spray 2.5 ml of Chloropyrphos/litre of water against Pseudo stem weevil in banana.

- In Central Dry Zone, infestation of Mealy bug is noticed in papaya plantation; take up spraying of Dimethoate @ 2 ml/litre of water to control infestation.
- In Hill Zone, for control of powdery mildew in mango, spray Carbendazim @1 g/litre of water or Hexaconazole @1g/litre of water as a precautionary measure.
- Suitable varieties for sowing are given in Annexure III.
 - **Animal Husbandary:**
- In Scarce Rainfall Zone of Andhra Pradesh, provide artificial brooding to chicks to maintain adequate temperature. Sides should be covered with curtains during cool hours of the day. Wet litter material should be removed regularly. Ensure proper cross ventilation to avoid ammonia accumulation in the poultry sheds.
- In the North Western Zone of Tamil Nadu, due to low night temperature, clear sky, chillness during the night and bright day light, feed intake in poultry remains elevated for another couple of weeks. As the duration of day light is short, 5-10% additional vitamin-D3 can be supplemented through feed to prevent egg breakage.
- Maintain optimum room temperature in sericulture, poultry and dairy unit in Eastern Dry Zone; in poultry by providing electric bulb in North East Transition Zone and Southern Dry Zone of Karnataka.

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



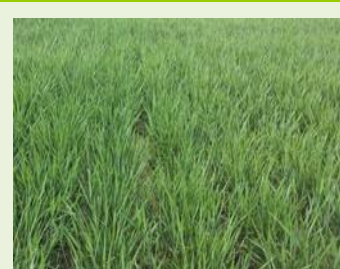
Banana



Rice



Cauliflower



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures are above normal (1.6°C to 3.0°C) at isolated places over northeastern states and near normal over rest of the region.
- **Advisories:**
 - As dense fog very likely at isolated places over Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura on 6th & 7th Jan., monitor potato, tomato and onion crops for early/late blight disease. If symptoms are noticed undertake plant protection measures.
 - **Assam, Meghalaya & Arunachal Pradesh:**
 - In Karimganj, Hailakandi and Cachar districts of Barak Valley Zone of Assam, complete transplanting of *Boro* rice in the main field. Those farmers who already transplanted the seedling are advised to maintain 5 cm standing water in the field. Undertake gap filling within a week of transplanting.
 - In Dhemaji, Lakhimpur, Sonitpur, Dibrugarh, Golghat, Jorhat and Sibsagar districts of Upper Bramhaputra Valley Zone of Assam, continue transplanting of *boro* rice.
 - In Karbi Anglong and NC Hills districts of Hill Zone of Assam, undertake earthing up in 25-30 days old potato crop i.e., at stolon formation stage. The crop should be irrigated after earthing up. Undertake harvesting of khasi mandarin.
 - In Marigaon and Nagaon districts of Central Bramhaputra Valley Zone of Assam, Undertake main field preparation for transplanting of boro paddy seedlings at proper age i.e 4 to 5 leaf stage (45 days old seedling).
 - In Barpeta, Bongaigaoin, Dhubri and Goalpara districts of Lower Bramhaputra Valley Zone of Assam, undertake harvesting of rapeseed & mustard. Earthing up of potatoes is to be done 25 days after planting (stolon formation stage) just before first irrigation.
 - In North Bank Plain Zone of Assam, undertake transplanting the seedling of boro rice attained 4-5 leaf stage. The field should be ploughed 3-4 times followed by laddering. Leveling should be done properly to retain water uniformly in the field. Undertake earthing up operation at stolon and tuber formation stages of potato.
 - In Arunachal Pradesh, complete harvesting of Wetland rice. Undertake mulching with straw/crop residue at root zone to avoid frost injury in banana.
 - In Meghalaya, complete transplanting of cauliflower/cabbage/broccoli.
 - In Hill Zone, humid weather is pre-disposing factor of the late blight disease in potato. Alternate application of Ridomil MZ-72 (2g/litre) and Indofil M-45 2.5g / litre at 15 days interval can prevent the disease. Malathion 50Ec @ 2ml/ litre should be sprayed if the infestation of aphid/saw fly is noticed in rapeseed & mustard.
 - In Central Bramhaputra Valley and North Bank Plain Zone of Assam, weather condition is favourable for aphid and sawfly in rapeseed and mustard. Farmers are advised to apply Dimethoate 30EC or Chloropyriphos @ 2ml/litre with a spray volume of 500-700 l/ha for hand sprayer & 200-250 l/ha for power sprayer.

- In Barak Valley Zone of Assam, cloudy weather and humid condition is most favorable for black spot disease in cole Crops, leafy vegetables and blight in tomato. To manage the disease in leafy vegetables and cole crops, spray Mancozeb @ 2gm per litre of water. To manage the blight in tomato, apply Ridomil or Indofil @ 2 gm per litre of water. Application of irrigation should be stopped for a few days to control the disease completely.
- In Central Bramhaputra Valley Zone of Assam, farmers are advised to drench the soil with Bavistin @ 1ml/lit of water to protect linseed/ *rabi* pulses crop from wilt. Farmers are also advised to apply Chlorophyriphos @ 3 ml per lit. of water during evening hours to control cutworm infected field.
- **Nagaland, Manipur, Mizoram and Tripura:**
 - In Nagaland, complete harvesting of TRC/WRC rice.
 - In Manipur, continue transplanting of cole crops/cauliflower/tomato. Continue sowing of *rabi* maize.
 - In Mizoram, continue harvesting of *khasi* mandarin/acid lime, oil palm, banana and colocasia. Continue nursery sowing of onion, capsicum, French bean, carrot and raddish. Continue sowing of *rabi* maize and planting of potato.
 - In Arunachal Pradesh, Spray Indofilm-45 @ 2.5g/litre as preventive measure against alternaria blight and dimethoate 30 EC @ 3ml/litre for aphid in mustard.
 - In Nagaland, spray 4% neem seed kernel extract to kill early stages larvae in vegetables like cabbage/cauliflower etc.
 - In Tripura, continue land preparation for transplanting of boro rice in the main field. As dry weather prevails, provide light irrigation with mulching in mustard, lentil, cole crops, *rabi* maize.
 - In Manipur, to control aphid in rapeseed/mustard, spray Monocrotophos @ 1.5 ml/litre of water to the infected patches only. Also spray Propiconazole @ 15ml/15 litre water against rust/powdery mildew in pulses and Mancozeb and Chlorothalonil against early blight in potato.
 - In Tripura, due to humid weather is conducive for black spot disease in Cole Crops and other leafy vegetables. To manage the attack in leafy vegetables and Cole crops, Mancozeb @ 2g per liter of water may be sprayed. Also early blight which may occur in potato due to prevailing foggy condition. Cymoxanil+ Mancozeb or Metalaxy1+ Mancozeb @ 1.5gm per liter of water may be sprayed in the potato field at least twice at an interval of 15 days.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - In Assam, gunny bags or plastic sheath curtains should be given on the side walls and bedding material should be increased to protect poultry from cold. Care should be taken not to restrict ventilation.
 - In Central Bramhaputra Valley Zone of Assam, the cattle, goat and pigs should be vaccinated against BQ, HS, Foot and Mouth disease. Vaccination to control the ranikhet disease of poultry may be done during this period.
 - In Tripura, cover poultry house with gunny bags/ polythene sheet to prevent the expose of animal to cool night. Heating during night may also be given to chicks less than 21 days old.
- **Fishery**
 - In Central Bramhaputra Valley Zone and North Bank Plain Zone of Assam, in winter season apply the following chemicals to protect the fish population against various bacterial diseases, Potash @ 4-5 mg/litre of water, Sukrena WS @ 1 litre per bigha of water and lime in required doses.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Maize



Mustard



Groundnut



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures departure are appreciably below normal (3.1° C to 5.0° C) at isolated places over Marathwada, Madhya Maharashtra and Konkan & Goa; below normal (1.6°C to 3.0°C) at many places over Vidarbha. They are appreciably above normal (3.1°C to 5.0°C) at many places over Saurashtra & Kutch and above normal (1.6°C to 3.0°C) at a few places over Gujarat Region and near normal over rest of the region. Today the lowest minimum temperature of 5.9°C recorded at Ahmadnagar (Madhya Maharashtra) in the plains of the country.
- **Advisories:**
 - **Maharashtra:**
 - In Vidarbha, undertake inter-cultural operations like hoeing and weeding in timely sown wheat crop. Apply

protective irrigation to *rabi* crops. Complete picking of fully opened cotton bolls during morning hours. Attack of pink bollworm in cotton may occur, hence ratooning should not be taken. Last picked cotton should be stored separately. Undertake harvesting of pigeon pea.

- In Konkan, in transplanted *rabi* rice, maintain water level 2-3 cm for first 8-10 days and then increase the level up to 5 cm. Apply light irrigation to groundnut, sunflower and mustard crop. Undertake thinning of water melon plants @ 2 plants per basin. Continue planting of seasonal fodder crops *viz.* maize, sorghum and bajra.
- In Madhya Maharashtra, as minimum temperatures is around 10⁰C over north Madhya Maharashtra and no significant change is expected during next 2-3 days, apply light irrigation to sugarcane, wheat, gram, safflower, vegetables and orchards like banana, grapes, fig during evening hours in Nasik, Pune, Ahmednagar and Jalgaon districts. Complete picking of fully opened cotton bolls during morning hours. Attack of pink bollworm in cotton may occur, hence ratooning should not be taken. Undertake intercultural operations like weeding and hoeing in wheat and Bengal gram fields. Continue harvesting of pigeon pea.
- In Marathwada, apply light irrigation to sugarcane, wheat, gram, maize, vegetable crops and orchards. Complete picking of fully opened cotton bolls during morning hours. Attack of pink bollworm in cotton may occur, hence ratooning should not be taken. Last picked cotton should be stored separately. Continue harvesting of pigeon pea. Undertake top dressing of Nitrogen should be done in late sown wheat crop. Apply mulch of crop residue to maintain soil temperature in orchards.
- In Marathwada, to control attack of bacterial blight on turmeric crop; spray Carbendazim + Mancozeb @20 g per 10 litres of water.
- In Pune region, to control attack thrips and incidence of blight disease in onion crop; spray Mancozeb @30 g or Diathane M 45 @ 30 g per 10 litres of water.

▪ **Gujarat:**

- In South Gujarat Heavy Rainfall Zone, complete transplanting of cole crops.
- In North Gujarat Zone, continue sowing of watermelon. Under cold and dry weather condition, apply light irrigation in wheat, fennel, castor crops and pomegranate orchard. Carry out intercultural operations in late sown mustard and fennel crops. Undertake harvesting of matured spikes of castor.
- In South and North Saurashtra Zone apply irrigation in wheat (tillering/booting stage) crops. In South Saurashtra Zone, undertake intercultural operation in garlic, timely sown chickpea, coriander, cumin and vegetable crops, continue picking of matured cotton bolls during morning hours and picking of matured clusters of castor.
- Continue sowing of watermelon in North West Zone. Apply irrigation in wheat, castor and vegetable crops during evening hours. Carry out intercultural operations in mustard crop. Continue harvesting of matured pomegranate, guava, papaya, bare and aonla fruits.
- In Middle Gujarat Zone, provide irrigation to potato at 8-10 days interval by drip irrigation for better production. Carry out weeding / intercultural operations to conserve soil moisture and irrigate crops under dry condition.
- In North Saurashtra Zone, infestation of alternaria blight is observed in garlic crop due to fog/moist weather; increase periods between irrigations; spray Mencozeb @ 27 g /10 litres of water at 10 days interval. Attack of thrips and aphids in cumin has been reported; spray Imidacloprid @ 5 ml/10 litres of water for control.
- There are chances of infestation of blight in potato crop in North Gujarat Zone; to control, spray Mencozeb 0.2% @ 30 g plus 25 ml of concentrated desi soap solution in 10 litres of water. Spray next three dose at the interval of 10 days.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- In Marathwada, to protect the animals from cold, during early morning hang curtains of gunny bags around animal sheds. Use electric bulbs in poultry sheds. If Sore mouth in sheep and goat observed to control this separate the infected goats as soon as they get infected. Use ointment Vet-O-Max and Glycerin twice a day on the infected areas, after completely washing the infected area with hydrogen peroxide and cotton for seven days. One can use turmeric powder and fresh butter mixture if these ointments are not available. Mix two tablespoon of turmeric in one tablespoon of butter, and apply the paste gently on infected areas.
- In Vidarbha, farm livestock should be protected from exposure to cold particularly during night time, use electric bulbs for heat in animal sheds. Also apply two drops of Eucalyptus oil in the nose of animals.
- Under cold weather conditions in Gujarat, provide luke warm water to lactating animals. Keep young calves indoors during night time to avoid cold stress.

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



Red gram



Okra



Maize



Wheat

- **Realised Rainfall:** Rainfall occurred in Nicobar and South Andaman districts of Andaman & Nicobar Islands, Latehar district of Jharkhand. Weather remained mainly dry over rest of the region.
- **Realised Minimum Temperature:** Minimum temperatures departure are below normal (1.6°C to 3.0°C) at isolated places over Gangetic West Bengal, Odisha, Sub-Himalayan West Bengal & Sikkim and near normal over rest of the region.
- **Advisories:**
 - As dense fog at a few places with very dense fog at isolated places very likely over Bihar on 6th., dense fog at isolated places very likely over Bihar on 7th Jan., over Sub-Himalayan West Bengal on 6th, monitor potato, tomato and onion crops for early /late blight disease. If symptoms are noticed undertake plant protection measures.
 - **Odisha:**
 - In East and South Eastern Coastal Plain Zone, continue planting of potato. Undertake hoeing and weeding in irrigated mustard at vegetative stage. Thin out the plants and maintain optimum plant population. In North Eastern Coastal Plain Zone, complete harvesting of rice crops.
 - In Deogarh and Sundargarh districts of North Eastern Plateau Zone, complete sowing of, mung, Biri and Peas. Continue nursery sowing of rice.
 - In Kalahandi and Nuapara districts of Western Undulating Zone, cover the vegetable nurseries to protect from low temperatures. Irrigate the vegetable seedling nursery during evening hours. Continue sowing of groundnut and nursery sowing of onion. Continue harvesting of rice. If noticed spray Carbendazim or Matalaxyl + Mancozeb 2g/litre of water.
 - In Western Undulating Zone, continue harvesting & threshing of rice, picking of cotton and harvesting of castor and other matured crops. Complete sowing green gram and black gram during this week.
 - In Mayurbhanj and Keonjhar districts, continue sowing of green pea in fallow uplands and nursery raising of tomato, cauliflower and cabbage.
 - In North Central Plateau Zone, cloudy weather is favourable fore attack of aphids and leaf eating caterpillars on pulses. Spray Methyldemeton @ 400ml per acre to control these insects. To control grass weeds in green gram and blackgram, apply Clodinafop @ 60g a.i./ha (400g Point or Topik 15WP) or Targa Super (Quizalofop ethyl 5% EC) @ 2ml/litre of water at 15-20 days after sowing.
 - In East and South Eastern Coastal Plain Zone, pod borer has occurred in gram and pea, for control, spray 50 ml Imidacloprid or 400 ml Dimethoate or Metasystox in 200 litre water per acre.
 - In East and South Eastern Coastal Plain Zone, cold and cloudy weather favours the infestation of powdery mildew and aphid in green gram, black gram and pea. To control powdery mildew, spray 1 kg Sulfex WP in 200 litres of water per acre and to control aphids, spray 50 ml Imidacloprid or 400 ml Dimethoate or Metasystox in 200 litres water per acre.
 - In North Eastern Coastal Plain Zone, due to foggy weather, the aphid problems will aggravate on rapeseed and mustard crop. To control it during flowering stage, spray Neem oil 500 ppm @5ml/litre. In late sown crop, Imidacloprid can be sprayed@0.4ml/litre before flowering. Current weather is favourable for attack of Cabbage head borer. To control it spray, Triazophos @ 2ml/litre of water.
 - **West Bengal:**
 - In Burdwan, Murshidabad, Nadia, North 24 Parganas districts of New Alluvial Zone and Bankura, Bibhum, and purulia of Laterite and Red soil Zone, undertake land preparation for transplanting of *boro* rice. To protect the seedlings of *Boro* rice from cold, cover the nursery bed with polythene or keep stagnant water in the nursery bed especially for the night-time. Irrigate the nursery bed regularly. Keep 2 to 3 cm stagnant water. Weeding and thinning operation should be done in wheat at 21days after sowing. Give light irrigation to all vegetables crops.
 - In Purba Midnapore and South 24-parganas districts of Coastal Saline Zone, in boro rice nursery, fill the bed with water during evening and remove the water at morning hours for maintaining the temperature. Stir the seedlings for removing morning dew. For early planted potato, give one irrigation and earthing up (water level should be 2/3rd of furrow). Undertake sowing the seed of selected variety sunflower.

- In Malda & Dakshin Dinajpur districts of Old Alluvial Zone, thinning should be done in wheat at 21 days after sowing, then apply first top dressing of urea after light irrigation.
- In Old Alluvial Zone, prevailing weather condition is favourable for attack of aphids and alternaria leaf blight in mustard and late blight in potato. Spray Imidachloropid @ 2 ml/5 litre water against mustard aphids and to control Alternaria leaf blight, spray Metalaxyl + Mencozeb @ 2.5 gram per litre of water. For controlling of potato late blight, spray (Metalaxyl + Mancozeb) @ 2 gram /liter of water.
- In Coastal Saline Zone, due to cloudy and foggy weather, there is chance of attack of late blight in potato. Apply any Copper fungicide as a precautionary measure. Also there is chance of powdery mildew and downy mildew in mustard at flowering stage, for control, spray Diethane M-45@ 2.5g/litre of water powdery mildew and for downy mildew spray Copper fungicide@4g/liter of water in mustard at flowering stage.
- In New Alluvial Zone and Laterite red soil Zone, in prevailing weather condition, attack of mite or thrips may be severe in potato. To control the disease, apply Acephate-75%WP @ 0.75 gm litre of water.
- In Hill Zone, prevailing weather condition, Spray imidacloprid 17.8% SL @ 0.2 ml/litre. of water during evening to control mustard aphid and Spray wettable sulphur at 3 kg/ ha to manage powdery mildew in pea.
- In Laterite and Red soil Zone, low temperature favours the rust disease in wheat. Spray Mancozeb 75 Wettable Powder @ 2ml/litre of water.
- **Andaman and Nicobar Islands:**
- As rain/thundershowers likely at most/many places over Andaman and Nicobar Islands from 6th to 9th Jan. along with heavy rain very likely at isolated places over Andaman islands and heavy/ very heavy rainfall likely at isolated places over Nicobar islands on 6th to 8th Jan., postpone irrigation, application of fertilizers and plant protection methods to standing crops. Provide adequate drainage in standing crop fields.
- As squally wind speed reaching 25-35 kmph gusting to 45 kmph very likely over and around Andaman and Nicobar Islands on 6th & 7th Jan., provide support to banana and staking of vegetables, to prevent the crops from lodging due to strong winds. Fishermen are advised to be cautious while venturing into sea during the period. In North, Middle & South Andaman, farmers are advised to take all the harvested rice from field to nearby shelter as heavy rainfall is expected and harvest the matured vegetables immediately and take it to the nearby vegetable market to avoid losses due to the rain.
- In Nicobar, undertake prepared a channel at coconut field to avoid soil erosion due to overland flow of water.
- **Bihar:**
- In Araria, Katihar, Kishanganj, Madhepura, Purnea, Saharsa and Supaul districts in North East Alluvial Zone, irrigate the wheat crop which is about 21-25 and 40-45 days old. Broadcasting of urea @ 30kg/acre after 2 days of irrigation. Weeding must be done before application of urea . Provide light irrigation in vegetables such as cauliflower, cabbage, tomato, pea, chilli, brinjal, garlic etc as per soil moisture status.
- In Darbhanga, East Champaran, Gopalganj, Samastipur, West Champaran districts of North West Alluvial Plain Zone, undertake transplanting the seedling of onion. Give irrigation in 45-55 days wheat and old maize crop. Undertake Weeding in vegetables crops. Provide light irrigation in vegetables such as cauliflower, cabbage, tomato, pea, chilli, brinjal, onion nurse, garlic etc as per soil moisture status.
- In North East Alluvial Zone, there is chance of termite/cut worm infestation in maize crop at early vegetative stage. Spray Chlorpyrifos 20 EC @ 2-3ml/litre of water. Also spray Rogar or Quinalphos @ 2.0 ml/litre water against aphid infestation in mustard if insect population is above ETL. Spray of Mancozeb @ 2 gram/litre of water along with tepol (sticky material) against late blight in potato.
- In South Bihar Alluvial Zone, due to foggy weather condition there is chance of late blight in potato. Farmers are also advised to spray Dithane-M-45 @ 2 gram/litre of water or Carbandazim @1 g/litre of water along with Tepol (sticky material) for controlling the late blight. Also spray Dithane-M-45 @ 2 g/litre water against white rust in mustard.
- In North West Alluvial Plain Zone, weather is likely to remain favourable for spread of fungi borne early blight disease in potato. Spray Di- Ethane M-45@2.5 g/litre of water.
- **Jharkhand:**
- In Central and North Eastern Plateau Zone, prepare nursery bed for onion with well rotted FYM .
- In Western Plateau Zone, at existing weather condition, there is a chance of the attack of powdery mildew disease on green pea in which white powder appears on leaves and stem. To control this disease, spray Kairathen @ 1 ml per litre of water or Sulfex @ 3 g per litre of water.
- In Central and North Eastern Plateau Zone, due to high humidity and cold weather, there is chance of attack of late blight disease in potato, to control it - spraying of Metalaxyl MZ +Maancozeb @ 1.5g /litre of water is advised.
- In South Eastern Plateau Zone, timely sown arhar cop is at flowering to pod formation stage and at this stage if attack of leaf eating insect and pod borer are found, spray Monochrotophos @ 2 ml/litre of water two times at an interval of 10-12 days to control leaf eating insects. To prevent pod borer, spray Indoxacarb 14.5 % SC @ 120 ml/ acre or Emamectin benzoate 5 % SG @ 5 g/acre or Spinosad 14.5 % SC @ 23-30 g/acre or Neem 1500 ppm @ 800 ml/acre or Profenophos 50 EC @ 800 ml/acre is recommended.

- In Central and North Eastern Plateau Zone, due to weather, as well as increase and decrease in temperature there may be attack of pod borer and powdery mildew disease on Green Pea. Hence, spraying of Kairathen @ 1 ml or sulfex @ 3 ml per liter of water to prevent from further spreading. To control pod borer, spray Monochrotophos @ 1 ml per liter of water.
- In Western Plateau Zone, the existing weather condition is favourable for the attack of late blight disease in potato and aphids on mustard and other crops/vegetables. Hence, as a preventive measures, farmers may spray fungicide and insecticide in the respective crops.
- Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
- In Jharkhand, weather is favourable for Foot and Mouth Disease (FMD), vaccinate FMD vaccine to the cattle with the consultation of veterinary doctor. Also due to decrease in temperature, PPR Disease may increase in goat & sheep, farmers are advised to vaccinate their animal with PPR vaccine @ 1ml S/C.
- In Old Alluvial Zone of West Bengal, keep animals in covered shed to protect from low temperature during night.
- **Pisciculture**
- In North Eastern Coastal Plain Zone of Odisha, as the winter is in the starting phase, there is a possibility of “EUS” disease in fish. Farmers are advised to apply ‘Cifax’ @ 400 ml mixed with 40 litre of water in one acre pond area as a preventive measure. The fishes should be fed daily with oil cake bran mixture at the rate of 2-3 % of their total biomass.

CENTRAL INDIA [M.P., CHHATTISGARH]



Maize



Cabbage



Mustard



Wheat

- **Realised Rainfall:** Weather remained dry over the region.
- **Realised Minimum Temperature:** Minimum temperatures departure are below normal (1.6°C to 3.0°C) at isolated places over East Madhya Pradesh. They are above normal (1.6°C to 3.0°C) at a few places over West Madhya Pradesh, and at isolated places over East Madhya Pradesh and near normal over rest of the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - In Nimar Valley Zone, undertake top dressing of urea @ 30kg/acre after irrigation in one month old wheat crop.
 - In Gwalior, Bhind, Morena, Guna, Ashoknagar and Shivpuri districts, as dry weather would prevail apply irrigation in wheat at tillering stage, gram and vegetables.
 - In Indore and Ujjain districts, apply irrigation in wheat at tillering stage. Continue nursery preparation of summer vegetable like tomato, chilli, brinjal etc.
 - In Chhindwara and Betul districts, continue sowing of garlic, cumin, coriander etc. Apply irrigation in wheat at CRI stage and in coriander at flowering stage. Continue intercultural operations in vegetables.
 - In Vindhya Plateau Zone, apply irrigation in gram, wheat and vegetables.
 - In Tikamgarh, Chhatarpur and Datia districts, apply irrigation in vegetables, mustard and wheat. Continue intercultural operations in vegetables.
 - In Jhabua, Alirajpur and Dhar districts, apply irrigation in wheat, gram, mustard and vegetables. Continue picking up of matured vegetables and digging of matured rhizomes of turmeric and ginger.
 - In Jabalpur, Rewa, Satna districts, continue weeding in wheat, gram, lentil and mustard. Apply irrigation in wheat and in mustard at flowering stage. Continue harvesting of matured pea.
 - In Malwa Plateau Zone, if the symptoms of early blight appear in potato, apply Dithane M 45 @ 2 gram/litre of water twice at 10 days interval if required.
 - In Bundelkhand Zone, due to foggy sky and increased humidity potato crop may be affected by early blight disease, spray Mencozeb @ 2.5 ml per litre of water.
 - **Chhattisgarh:**
 - In North Hill Zone, apply irrigation in wheat after 20-25 days of sowing and broadcast urea @ 22 kg per acre after weeding.
 - In Chhattisgarh Plain Zone, continue transplanting of onion. Continue seedling preparation of cucurbitaceous crops in polythene bags. Apply irrigation in wheat at CRI stage and in gram and lentil crops. Apply irrigation in vegetables and undertake intercultural operations.

- In Bastar Plateau Zone, continue planting of sweet potato. Apply irrigation in wheat at CRI stage and broadcast half dose of urea.
- In North Hill Zone, in the prevailing weather, there are chances of incidence of aphids in mustard, radish and beans, spray Carbaryl @ 2 kg/ha.
- Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
- In Madhya Pradesh, keep animals in sheds during night hours and cover the floor with paddy straw litter to protect from cold. Provide artificial light during night time in poultry house. Provide mineral mixture and fresh and clean water to birds.
- In Chhattisgarh, protein enriched diet should be given to the animals and keep them in shed during night hours.

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



Mustard



Maize



Cauliflower



Wheat

- **Realised Rainfall:** Rainfall occurred in Baramula. Kupwara districts of Jammu & Kashmir, Weather remained mainly dry/dry over rest of the region.
- **Realised Minimum Temperature:** Minimum temperatures departure are markedly above normal (5.0°C and above) at a few places over Jammu & Kashmir and West Rajasthan; appreciably above normal (3.1°C to 5.0°C) at many places over Punjab, Haryana, Chandigarh & Delhi and above normal (1.6°C to 3.0°C) at a few places over East Rajasthan, at isolated places over Uttar Pradesh and near normal over rest of the region.
- **Advisories:**
 - As rain/snow is very likely at most/many places over Jammu & Kashmir and Himachal Pradesh from 6th to 8th and over Uttarakhand on 7th Jan., rain/thundershowers likely at most/many places over Haryana, Chandigarh & Delhi and Punjab on 6th & 7th Jan., postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops..
 - As heavy rain/ snow very likely at isolated places over Jammu & Kashmir and Himachal Pradesh on 6th & 7th and over Uttarakhand on 7th Jan., provide adequate drainage in standing crop fields to avoid water stagnation.
 - As dense fog at a few places with very dense fog at isolated places very likely over East Uttar Pradesh on 6th, dense fog at isolated places very likely over South west Uttar Pradesh on 6th and over East Uttar Pradesh on 7th Jan., monitor potato, tomato and onion crops for early/late blight disease and wheat crop for incidence of rust. If symptoms are noticed undertake plant protection measures.
 - **Rajasthan:**
 - In East Rajasthan, In Sub Humid Southern Plain and Aravali Hill Zone, in Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts, apply irrigation to late sown wheat crop is at CRI stage and top dress of urea 65 kg/ha. and in timely sown wheat crop apply top dressing of 2nd half of the remaining Nitrogen after 2nd irrigation. Apply irrigation to garlic crop every after 8-12 days. Undertake nursery sowing of tomato, apply 10 kg FYM, 1 kg Neem cake, 100 g superphosphate and 10 g Furadon to soil before sowing of tomato nursery and seed treated with Carbendazim 2g/kg seed and treated with sowing time Azosporilium 40 g/400 g seed.
 - In Arid Western Plain Zone, in Barmer, Churu, Jalore, Jodhpur, Pali districts, apply irrigation to wheat crop after 50 days of sowing. Apply light irrigation in vegetables as per requirement and to fenugreek at flowering stage and in onion crop after 10 to 15 days of sowing. In Jaisalmer and Bikaner districts, in timely sown wheat crops, apply 2nd and 3rd irrigation as per requirement at 40 and 60 days after sowing respectively and 2nd irrigation to the barley crop at 65-70 days after sowing.
 - In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, apply irrigation to timely sown barley crop at jointing stage. Undertake transplanting of rabi onion, maintain 15 cm row to row and 10 cm plant to plant distance. To protect sensitive crops like mustard, Rajmash, potato, gram from frost attack, spray dilute Sulphuric acid @ 0.1% (1 litre H₂SO₄ in 1000 litre water) or thiourea @ 500 ppm (500 gm thiourea in 1000 litre water) at flowering stage.
 - In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, apply first irrigation to late sown wheat crop at 25-30 days after sowing and in jou crop in irrigated areas first irrigation at 30 to 35 days after sowing and

second irrigation at 60 to 70 days of sowing and second irrigation in mustard crop at flowering stage. Apply first irrigation to gram crop at 50 to 55 days after sowing.

- In Arid Western Plain Zone, in Jaisalmer and Bikaner districts, prevailing weather condition is congenial for attack of aphid infestation in mustard crop for control apply Malathion 50 EC @ 1200 ml per hectare or Dimethoate 30 EC @ 1200 ml per hectare along with water after current spell of rain.
- In Arid Western Plain Zone, in Jaisalmer and Bikaner districts, prevailing humid weather condition is congenial for attack of alternaria blight in cumin and white rust in mustard crops for control apply Carbendazim or Carbendazim + Mencozeb @ 2gm per litre of water and Ridomil MZ-72 @ 1 ml per litre of water or Mencozeb @ 2 gm per litre of water, in cumin and mustard crop respectively after current spell of rain.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganaganagar, prevailing weather condition is congenial for attack of white rust in mustard crop for control spray Rhidomil MZ @ 2 g per litre of water after current spell of rain.
- In Irrigated North Western Plain Zone Arid and Western Plain Zone, prevailing weather condition is congenial for attack of termite in wheat crop for control spray Chloripyrifos 20 EC @ 1 litre per bhiga with irrigation.
- In East Rajasthan, 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 moyala in mustard and fenugreek crop, for control apply Dimethoate 30 EC @ 1litre per hectare.
- **Jammu & Kashmir:**
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, provide staking to garden pea and give irrigation at first flower and pod formation stage.
 - In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, apply 2nd dose of urea (25%) as top dressing after current spell of rain. Continue very late sowing of wheat varieties such as Raj 3077, HD-2285, Raj-3765 and HD-2402 after receipt of rainfall.
 - In Valley Temperate Zone of Jammu and Kashmir, in high frost condition mulching of seed crops of KnolKhol, cabbage and other root crops may be done. Undertake seed sowing of leafy vegetables in poly house. Provide drainage channels in the fields as there is possibility of accumulation of water in the field. Avoid stagnation of water in saffron field. Do hand weeding/hoeing to reduce infestation by weeds to saffron crop.
 - In Cold Arid Zone of Leh, continue harvesting of Chinese cabbage, palak, pakchoi, knolkhol and lettuce in protected structures. Apply second dose of nitrogenous fertilizer in cabbage, cauliflower and broccoli in green houses. Timely irrigation should be applied at 7-10 days intervals. The current night temperature is below - 11.5deg.C. Therefore the trenches and poly houses should be covered with blankets. Transplanting of HaenzSaag and other cold tolerant vegetables should be done as a second crop under poly houses.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, there may be infestation of Alternaria Blight on mustard crop. If spots of Alternaria Blight is observed, spray Mancozeb @ 2.5g /litre of water and Ridomil MZ @ 2.5g/litre alternatively after the current spell of rain. Keep strict vigil on yellow rust infestation in wheat crop. If observed, apply prophylactic spray on the crop with Propiconazole (Tilt) 25 EC @ 0.1 % (1ml/litre of water) after current spells of rain.
- **Uttarakhand:**
 - In Udham Singh Nagar district of Bhabar and Tarai Zone, complete late sowing of barley variety like-Jyoti, Preeti, Manjula, Jagrati. To save the newly transplanted seedlings of papaya, mango and litchi from frost, these plants should be covered by straw.
 - In Nainital district of Bhabar and Tarai Zone, in valley, to save the potato from frost timely irrigation should be applied at required interval. Undertake field preparation for summer Squash (Chappankaddu).
 - In Udham Singh Nagar district of Bhabar and Tarai Zone, there may be occurrence of Mahu in mustard crop, spraying of 1litre of Methyl-O-Demeton 25 EC in 800-1000 litre of water should be done. Spraying should be done after 02:00 PM.
 - In TehriGarhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, undertake the weeding and hoeing in vegetable crops on a non rainy day. Give light irrigation to vegetable crops to protect from frost.
 - In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone., undertake transplanting of onion and undertake harvesting of toria after current spell of rain.
 - In Bhabar and Tarai Zone, weather is favourable for late blight disease in potato and tomato crop, it is advised that Mancozeb @ 2.5g/litre should be sprayed after current spell of rain.
- **Himachal Pradesh:**
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, continue earthing-up in potato if crop has a height of 15-22 cm in lower and mid hill regions on a non rainy day. Continue thinning and weeding operation in timely sown mustard crop and intercultural operations & weed control in sarsonsaag, bathua, radish, spinach, fenugreek, coriander, turnip on a non rainy day, apply mulch and well rotten FYM on these crops. Spray 2 % Urea or Potassium Sulphate for proper growth of pods this also protect pea crop

from frost injury.

- In Mild Hills Sub-Humid Zone of Himachal Pradesh, in Kullu and Mandi districts, undertake preparation of tree basins in stone fruit, apple and pomegranate orchards. Continue pruning in stone fruits and pomegranate orchard by removing diseased and unwanted branches etc. Apply Chaubatia paint (copper carbonate 800 gm + Red lead 800 gm+ Alsi oil 1 litre) on cut ends. Continue transplanting of onion nursery in field. Continue hoeing and weeding operation in garlic crop.
- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul & Spiti, continue preparation of the basin and remove the weeds in apple orchards.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of thrips in onion crop, for control, spray Carbaryl @ 2 gm per litre of water with sticky material (Tipol 1.0 gm per litre) after current spell of rain.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of aphid in mustard, for control in early stage cut and destroy the infested part of the plant, if insect population above ETL than spray Rogar or Quinalphos @ 2.0 ml per litre of water after current spell of rain. For pod borer in the gram crop, installation of Pheromone trap @ 3-4 traps per acre is advised if flowering has reached 10-15%. "T" shaped bird perches in and around crop field to be installed for controlling insect population after current spell of rain.
- **Punjab, Haryana and Delhi:**
- In Western Zone of Punjab, to protect vegetable crops from frost damage, provide polythene sheet/sarkanda/kahi rice straw to save the young seedlings from frost. Transplant 4-6 weeks old seedlings of onion in the field during first fortnight of January.
- In Central Plain Zone of Punjab, undertake sowing of sunflower (PSH 1962, DK 3849, PSH 996, PSH 569, PSFH 118 and SH 3322). Start harvesting of grape fruit.
- In Haryana, carry out intercultural operations for conserving the moisture and removing weeds in mustard crop on a non rainy day. Cover the young plants to protect them from low temperature. Continue harvesting of early varieties of sugarcane.
- In New Delhi, seedlings of early cucurbitaceous crops may be prepared in small polythene bags in poly houses. Undertake transplanting of onion seedlings and late varieties of cabbage, cauliflower, knolkhol etc. on ridges. Undertake sowing of spinach, coriander, fenugreek and carrot.
- In Gurdaspur and Hoshiarpur district of undulating Plain Zone of Punjab, due to prevailing favourable weather conditions, there may be incidence of Late blight on potato, spray Indofil M45 @ 250g/acre on a non rainy day to control the disease.
- In Western Semi-Arid Zone of Delhi, in present weather condition constant monitoring of aphid is advised in mustard crop. If insect population is above ETL then spray Rogar or Quinalphos @ 2.0 ml/litre water. Due to high relative humidity, infection of blight may occur in potato and tomato. Constant monitoring is advised. If symptoms appear then spray Carbandizam @ 1.0 g/litre of water or Dithane-M-45 @ 2.0 g/litre of water on a non rainy day.
- **Uttar Pradesh:**
- In Central Plain Zone of Uttar Pradesh, continue harvesting of matured sugarcane. Apply first irrigation in late sown wheat crop after 15 to 18 days of sowing. Apply light irrigation in timely sown wheat crop after 20 to 25 days of sowing. Apply light irrigation in gram crop after 45 to 60 days of sowing before flowering stage. Undertake weeding operation in winter maize crop. Continue nursery sowing of chilli and tomato. Complete transplanting of onion nursery. Apply light irrigation in vegetable as per requirement. Apply second irrigation in timely sown mustard crop at 55 to 60 days of sowing. Continue weeding operation and light irrigation as per requirement in standing crops of gram, pea, mustard and linseed.
- In Western Plain Zone of Uttar Pradesh, apply first irrigation to late sown wheat crop if it is 21-25 days old as per requirement, after 3-4 days of irrigation broadcast rest half dose of nitrogen (urea). Apply second irrigation in timely sown wheat crop at tillering stage. Undertake transplanting of onion seedling.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of stem borer in sugarcane crop, for control, apply Furadan @ 30 kg per hectare.
- In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of powdery mildew in pea crop, for control broadcast Sulphur 80% @ 2 kg. or Tridemorph 80% EC @ 500 ml in 500 to 600 litres of water per hectare. In Central Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of mosaic in potato crop, for control, uproot infected plant and spray Demecron @ 250 ml or Metasistoc @ 1 litre in 800 to 1000 litres of water per hectare.
- In Western Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of termite in wheat crop for control apply mixture of 20 kg sand with Chlorpyrifos 20 EC @ 2.0 litre per acre in the evening hours and subsequent irrigation is recommended.
- In Western Plain Zone of Uttar Pradesh, in prevailing weather condition, monitor the pod borer in the gram crop, for control install Pheromone trap @ 3-4 traps per acre if flowering has reached 10-15%. "T" shaped bird perches in

and around crop field to be installed for controlling insect population.

- In Western Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of thrips in timely sown onion crop, for control spray Carbaryl @ 2 g per litre of water with sticky material (Tipol @ 1.0 g/litre) in clear weather after current spell of rain.

- Suitable varieties for sowing are given in Annexure III.

- **Horticulture**

- In Central Plain Zone of East Uttar Pradesh, apply light irrigation to newly orchards plants to protect from frost and fog.

- In Himachal Pradesh present weather is conducive for the attack of leaf minor in Citrus for control spray Matasystox @ 10 ml or Malathion @ 10 ml in 10 litres of water and for control of Citrus canker in citrus, spray Streptocycline Sulphate 500 ppm solution after current spell of rain.

- In Himachal Pradesh present weather is conducive for the Citrus canker in citrus, for control spray Streptocycline Sulphate 500 ppm solution.

- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of mealy bug in mango, guava and pomegranate fruit plants for control apply Quinalphos 1.5 % dust @ 50-100 gm per plant at 10-15 cm depth. If the mealybug has climbed up the trees, then spray Dimethoate 30 EC @ 1.5 ml or Fenthion 50 EC @ 1 ml per litre.

- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of pomegranate butter fly in Aonla trees at fruiting stage, for control spray Carbaryl 50 WP 2-4 gm @ 1 ml per litre water.

- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, provide thatching prepared from Sarkanda or any other material to young plants and burn garden waste in night to give protection against frost.

- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, undertake plantation of peach, plum, apricot, almond walnut and peacan nut.

- In Nainital district of Bhabar and Tarai Zone, in high hills, pruning of temperate fruit trees like apple, pear, peach, plum etc should be started.

- In Udhampur district of Bhabar and Tarai Zone, to control the Mango mealy bug in mango, polythene strips should be used so that plants can be protected from these insects. For this, stem of plants should be covered by 25-30 cm broad polythene and above 30-40 cm from the ground. After covering the stem, grease and unusable oil should be applied in the upper and lower part of polythene and both the end of polythene should be tied with the help of chord/string.

- **Floriculture**

- In Himachal Pradesh, present weather is conducive for the attack of inflorescence rotting disease in marigold crop for control spray Bavistin @ 1 g per litre of water or Indofil-M 45 @ 2 ml per litre of water after current spell of rain.

- In Valley Temperate Zone of Jammu and Kashmir, continue planting of spring flowering bulbs of tulip, iris, daffodils etc. Transplanting of winter flowering annuals may be continued. Prune the trees and shrubs to avoid damage by heavy snow during the season.

- **Apiculture**

- In Himachal Pradesh, give the winter packing immediately to bee colonies. Check the colonies for nectar and give artificial food to honey bees as there is scarcity of flowers during these days. And keep colonies in sun on clear day.

- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, keep colonies at a place where sunlight is properly received. Maintain bee strength by giving sealed brood to weak colonies, or unite them. Protect colonies from rainfall.

- In Rajouri, Ramban, Poonch and Udhampur districts of Jammu & Kashmir, farmers are advised to migrate the honey bee colonies from hilly regions to plains to avoid mortality due to decline in temperature.

- **Animal Husbandry**

- In Rajasthan, as temperature may be low in coming days, take care of domestic animals. Keep them in shelter during night and in early morning and increase the quantity of concentrates in their diet. Add mineral mixture in balance diet of the animals. Avoid excess feeding of berseem, lucerne etc to protect from bloat. Feed these green fodders along with dry roughages to prevent from bloat.

- In High Hills Temperate Dry Zone of Himachal Pradesh, protect the newly born calves and animals from cold. Feed pregnant and lactating cows and buffalos with balance feed including mineral mixture. For milch animals follow schedule of 1 kg feed+50g mineral mixtures per 2 litres of milk. Ensure to give 50 g mineral mixture to animals daily. Ensure cleanliness in cows having advanced pregnancy to avoid mastitis.

- In Punjab, keep the animals in dry place and change the bedding material as and when required. Cover the animals with Jhull (Jute cloth) in extreme cold. The energy content of the concentrate mixture should be increased by 5-10 % where the protein in the concentrate can be reduced by 2-3 per cent during cold season.

- In Rajouri, Ramban, Poonch and Udhampur districts of Jammu & Kashmir, Nomads and Bakarwals are advised to

deworm their flocks using Panacur @ 7.5g/kg body weight to avoid the economic loss.

- In Nainital district of Bhabar and Tarai Zone, to save the animals from cold, proper arrangement of animal shed should be done. Vaccination should be given to the animals to save them from Rinderpest disease (Sheetlarog). To save the animal from cold, increase the amount of oil and Jaggery (Gur) in the food of animals. Caraway (Ajwain) and gur also be given to the animals.
- **Fishries**
- In Himachal Pradesh, disinfect the fish tank by draining out the water and exposing the bottom floor of the tank to direct sunlight.
- In Jammu & Kashmir, farmers should not further add any manure/fertilizer/feed for some days in case of appearance of algal bloom in the fish pond. Remove algal bloom by the addition of fresh water in to the fish pond.
- **Poultry**
- In Himachal Pradesh, replace the poultry houses with fresh litter to avoid wetting and keep the houses clean and ensure clean drinking water to the birds. Protect the birds from cold and increase the feed by 10%. For the attack of cocksedia disease consult the nearby veterinarian. Temperature is falling so farmers are advised to make the arrangements for protection of cold in the poultry houses.
- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, keep temperature 37 deg. Celcius for day old chicks in brooding house with the bukhari.

Districtwise realised rainfall and % departure for past three weeks is given below in Annexure I

Annexure I

Sub-Divisions	21.12.16		28.12.16		04.01.17	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	0.0	-100	6.6	-48	0.4	-98
Dibang Valley	0.0	-100	0.0	-100	0.0	-100
East Kameng	0.0	-100	0.0	-100	0.0	-100
East Siang	0.0	-100	11.7	38	0.0	-100
Kurung Kumey	**	**	**	**	**	**
Lohit	0.0	-100	13.4	18	0.0	-100
Lower Dibang Valley	0.0	-100	0.0	-100	4.2	-63
Lower Subansari	**	**	**	**	**	**
Papumpare	1.2	-8	5.6	81	0.0	-100
Tawang	3.0	-52	0.0	-100	0.0	-100
Tirap	0.0	-100	3.2	-57	0.0	-100
Upper Siang	0.0	-100	0.0	-100	0.0	-100
Upper Subansari	0.0	-100	10.0	355	0.0	-100
West Kameng	0.0	-100	0.9	-80	0.0	-100
West Siang	0.0	-100	7.0	13	0.0	-100
Assam&Meghalaya						
Assam						
Baksa	0.0	-100	11.6	347	0.0	-100
Barpeta	0.0	-100	0.0	-100	0.0	-100
Bongaigaon	0.0	-100	0.0	-100	0.0	-100
Cachar	0.0	-100	10.8	259	0.0	-100
Chirang	0.0	-100	0.0	-100	0.0	-100
Darrang	**	**	**	**	**	**
Dhemaji	0.0	-100	9.0	91	0.0	-100
Dhubri	0.0	-100	1.4	59	0.0	-100
Dibrugarh	0.0	-100	4.2	-18	0.4	-88
Goalpara	0.0	-100	0.8	-66	0.0	-100

Golaghat	0.0	-100	3.1	-35	0.0	-100
Hailakandi	0.0	-100	8.6	72	0.0	-100
Jorhat	0.0	-100	32.9	866	0.1	-98
Kamrup(Rural)	0.0	-100	0.0	-100	0.0	-100
Kamrup(Metro)	0.0	-100	1.6	-6	0.0	-100
Karbi Anglong	0.0	-100	0.0	-100	0.0	-100
Karimganj	0.0	-100	17.6	96	0.0	-100
Kokrajhar	0.0	-100	0.3	-92	0.0	-100
Lakhimpur	0.0	-100	0.9	-80	0.0	-100
Morigaon	0.0	-100	9.2	384	0.0	-100
N.C.Hills	0.0	-100	4.4	529	0.0	-100
Nagaon	0.0	-100	10.1	290	0.0	-100
Nalbari	0.0	-100	1.4	200	0.0	-100
Sonitpur	0.0	-100	2.4	20	0.0	-100
Sibsagar	0.0	-100	10.2	920	0.0	-100
Tinsukia	0.0	-100	3.6	-37	0.0	-100
Udalgiri	0.0	-100	11.1	1750	0.0	-100
Meghalaya						
East Garo Hills	0.0	-100	15.6	271	0.0	-100
East Khasi Hills	0.4	-49	7.1	296	0.0	-100
Jaintia Hills	0.0	-100	**	**	**	**
Ribhoi	0.0	-100	1.7	-45	2.1	320
South Garo Hills	29.0	133	0.0	-100	0.0	-100
West Garo Hills	0.0	-100	4.8	60	0.0	-100
West Khasi Hills	0.0	-100	**	**	**	**
NMMT						
Mizoram						
Aizwal	0.0	-100	0.0	-100	0.0	-100
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	0.0	-100	0.0	-100	0.0	-100
Mamit	**	**	**	**	**	**
Saiha	0.0	-100	0.0	-100	0.0	-100
Serchhip	0.0	-100	0.0	-100	0.0	-100
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	0.0	-100	0.0	-100	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	0.0	-100	2.1	17	7.2	324
Imphal west	0.0	-100	0.8	-64	0.0	-100
Senapati	**	**	**	**	0.0	-100
Tamenglong	**	**	**	**	**	**
Thoubal	0.0	-100	0.0	-100	**	**
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	0.0	-100	5.8	1833	0.0	-100
Kephire	0.0	-100	3.0	-19	**	**
Kohima	0.0	-100	2.4	33	0.0	-100

Longleng	**	**	**	**	**	**
Mokokchung	0.0	-100	0.0	-100	**	**
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	0.0	-100	0.0	-100	0.0	-100
Tuensang	**	**	**	**	**	**
Wokha	0.0	-100	6.0	253	0.0	-100
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	0.0	-100	0.0	-100	0.0	-100
NorthTripura	0.0	-100	6.9	50	0.0	-100
SouthTripura	0.0	-100	0.0	-100	0.0	-100
West Tripura	0.0	-100	0.5	-85	0.0	-100
Himachal Pradesh						
Bilaspur	0.0	-100	4.5	-69	0.0	-100
Chamba	0.0	-100	0.9	-96	1.9	-89
Hamirpur	0.0	-100	2.5	-83	0.0	-100
Kangra	0.0	-100	3.4	-80	0.3	-98
Kinnaur	0.0	-100	5.0	-76	1.0	-94
Kullu	0.0	-100	0.0	-100	0.6	-95
Lahaul and Spiti	0.0	-100	0.0	-100	4.0	-80
Mandi	0.0	-100	0.0	-100	0.0	-100
Shimla	0.0	-100	2.7	-75	4.1	-64
Sirmaur	0.0	-100	3.4	-77	0.0	-100
Solan	0.0	-100	5.9	-55	0.0	-100
Una	0.0	-100	0.8	-93	0.0	-100
Punjab						
Amritsar	0.0	-100	0.0	-100	0.0	-100
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	0.0	-100	0.0	-100	0.0	-100
Faridkot	0.0	-100	0.0	-100	0.0	-100
Fatehgarh Saheb	0.0	-100	6.3	-39	0.0	-100
Ferozpur	0.0	-100	0.0	-100	0.0	-100
Gurdaspur	0.0	-100	2.6	-75	0.0	-100
Hoshiarpur	0.0	-100	0.0	-100	0.0	-100
Jalandhar	0.0	-100	0.0	-100	0.0	-100
Kapurthala	0.0	-100	0.0	-100	0.0	-100
Ludhiana	0.0	-100	1.3	-83	0.0	-100
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	0.0	-100	0.0	-100	0.0	-100
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	0.0	-100	1.7	-85	0.0	-100
Patiala	0.0	-100	1.9	-75	0.0	-100
Ropar	0.0	-100	5.5	-47	0.0	-100
Sangrur	0.0	-100	0.0	-100	0.0	-100
Mohali	0.0	-100	19.0	83	0.0	-100
TarnTaran	0.0	-100	0.0	-100	0.0	-100
Haryana,Chd,Delhi						
Haryana						

Ambala	0.0	-100	8.0	-10	0.0	-100
Bhiwani	0.0	-100	0.0	-100	0.0	-100
Chandigarh	0.0	-100	22.8	94	0.0	-100
Faridabad	0.0	-100	0.0	-100	0.0	-100
Fatehabad	0.0	-100	0.0	-100	0.0	-100
Gurgaon	0.0	-100	0.0	-100	0.0	-100
Hissar	0.0	-100	0.0	-100	0.0	-100
Jhajar	0.0	-100	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.0	-100
Katihah	0.0	-100	0.0	-100	0.0	-100
Karnal	0.0	-100	0.0	-100	0.0	-100
Kurukshetra	0.0	-100	0.0	-100	0.0	-100
Mahendragarh	0.0	-100	0.0	-100	0.0	-100
Mewat	0.0	-100	0.0	-100	0.0	-100
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	0.0	-100	17.6	117	0.0	-100
Panipat	0.0	-100	0.0	-100	0.0	-100
Rewari	0.0	-100	0.0	-100	0.0	-100
Rohtak	0.0	-100	0.0	-100	0.0	-100
Sirsa	0.0	-100	0.0	-100	0.0	-100
Sonepat	0.0	-100	0.0	-100	0.0	-100
Yamunanagar	0.0	-100	9.8	38	0.0	-100
Delhi						
Central Delhi	0.0	-100	**	**	**	**
East Delhi	0.0	-100	0.0	-100	0.0	-100
New Delhi	0.0	-100	0.0	-100	0.0	-100
North Delhi	0.0	-100	0.0	-100	0.0	-100
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	0.0	-100	0.0	-100	0.0	-100
South Delhi	0.0	-100	0.0	-100	0.0	-100
South West Delhi	0.0	-100	0.0	-100	0.0	-100
West Delhi	**	**	**	**	**	**
Jammu & Kashmir						
Anantnag	0.0	-100	0.0	-100	6.4	-40
Badgam	0.0	-100	0.0	-100	0.2	-96
Bandipore	**	**	**	**	**	**
Baramula	0.0	-100	0.0	-100	28.8	33
Doda	0.0	-100	10.8	-65	7.2	-71
Ganderbal	0.0	-100	0.0	-100	11.6	41
Jammu	0.0	-100	0.0	-100	0.0	-100
Kargil	**	**	**	**	**	**
Kathua	0.0	-100	0.0	-100	0.0	-100
Kistwar	**	**	**	**	**	**
Kulgam	0.0	-100	0.2	-98	3.2	-71
Kupwara	0.0	-100	0.0	-100	30.4	149
Ladakh(Leh)	0.0	-100	0.0	-100	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	0.0	-100	0.0	-100	6.3	3
Rajouri	0.0	-100	0.0	-100	0.0	-100

Ramban	0.0	-100	1.7	-96	8.2	-63
Reasi	0.0	-100	4.1	-80	0.5	-97
Samba	0.0	-100	0.0	-100	0.0	-100
Shopian	**	**	**	**	**	**
Srinagar	0.0	-100	0.0	-100	10.6	29
Udhampur	0.0	-100	0.0	-100	0.0	-100
East Madhya Pradesh						
Anuppur	0.0	-100	0.0	-100	0.0	-100
Balaghat	0.0	-100	0.0	-100	0.0	-100
Chhatarpur	0.0	-100	0.0	-100	0.0	-100
Chindwara	0.0	-100	0.0	-100	0.0	-100
Damoh	0.0	-100	0.0	-100	0.0	-100
Dindori	0.0	-100	0.0	-100	0.0	-100
Jabalpur	0.0	-100	0.0	-100	0.0	-100
Katni	0.0	-100	0.0	-100	0.0	-100
Mandla	0.0	-100	0.0	-100	0.0	-100
Narsingpur	0.0	-100	0.0	-100	0.0	-100
Panna	0.0	-100	0.0	-100	0.0	-100
Rewa	0.0	-100	0.0	-100	0.0	-100
Sagar	0.0	-100	0.0	-100	0.0	-100
Satna	0.0	-100	0.0	-100	0.0	-100
Seoni	0.0	-100	0.0	-100	0.0	-100
Shahdol	0.0	-100	0.0	-100	0.0	-100
Sidhi	0.0	-100	0.0	-100	6.8	172
Singrauli	0.0	-100	0.0	-100	4.5	350
Tikamgarh	0.0	-100	0.0	-100	0.0	-100
Umaria	0.0	-100	0.0	-100	0.0	-100
West Madhya Pradesh						
Agar	0.0	-100	0.0	-100	0.0	-100
Alirajpur	0.0	-100	0.0	-100	0.0	-100
Asoknagar	0.0	-100	0.0	-100	0.0	-100
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	0.0	-100	0.0	-100	0.0	-100
Bhind	0.0	-100	0.0	-100	0.0	-100
Bhopal	0.0	-100	0.0	-100	0.0	-100
Burhanpur	0.0	-100	0.0	-100	0.0	-100
Datia	0.0	-100	0.0	-100	0.0	-100
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	0.0	-100	0.0	-100
Guna	0.0	-100	0.0	-100	0.0	-100
Gwalior	0.0	-100	0.0	-100	0.0	-100
Harda	0.0	-100	0.0	-100	0.0	-100
Hoshangabad	0.0	-100	0.0	-100	0.0	-100
Indore	0.0	-100	0.0	-100	0.0	-100
Jhabua	0.0	-100	0.0	-100	0.0	-100
Khandwa	0.0	-100	0.0	-100	0.0	-100
Khargone	0.0	-100	0.0	-100	0.0	-100
Mandsaur	0.0	-100	0.0	-100	0.0	-100

Morena	0.0	-100	0.0	-100	0.0	-100
Neemuch	0.0	-100	0.0	-100	0.0	-100
Raisen	0.0	-100	0.0	-100	0.0	-100
Rajgarh	0.0	-100	0.0	-100	0.0	-100
Ratlam	0.0	-100	0.0	-100	0.0	-100
Sehore	0.0	-100	0.0	-100	0.0	-100
Shajapur	0.0	-100	0.0	-100	0.0	-100
Sheopur Kalani	0.0	-100	0.0	-100	0.0	-100
Shivpuri	0.0	-100	0.0	-100	0.0	-100
Ujjain	0.0	-100	0.0	-100	0.0	-100
Vidisha	0.0	-100	0.0	-100	0.0	-100
Chhattisgarh						
Balod	0.0	-100	0.0	-100	0.0	-100
Baloda Bazar	0.0	-100	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	1.0	-29
Bastar	0.0	-100	0.0	-100	0.0	-100
Bemetara	0.0	-100	0.0	-100	0.0	-100
Bijapur	0.0	-100	0.0	-100	0.0	-100
Bilaspur	0.0	-100	0.0	-100	0.1	-96
Dantewara	0.0	-100	0.0	-100	0.0	-100
Dhamtari	0.0	-100	0.0	-100	0.0	-100
Durg	0.0	-100	0.0	-100	0.0	-100
Gariaband	0.0	-100	0.0	-100	0.0	-100
Janjgir	0.0	-100	0.0	-100	0.0	-100
Jashpurnagar	0.0	-100	0.0	-100	0.0	-100
Kabirdham	0.0	-100	0.0	-100	0.0	-100
Kanker	0.0	-100	0.0	-100	0.0	-100
Kondagaon	0.0	-100	0.0	-100	0.0	-100
Korba	0.0	-100	0.0	-100	5.3	256
Koriya	0.0	-100	0.0	-100	0.0	-100
Mahasumund	0.0	-100	0.0	-100	0.0	-100
Mungeli	0.0	-100	0.0	-100	0.0	-100
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	0.0	-100	0.0	-100	0.0	-100
Raipur	0.0	-100	0.0	-100	0.0	-100
Rajnandgaon	0.0	-100	0.0	-100	0.0	-100
Sukma	0.0	-100	0.0	-100	0.0	-100
Surajpur	0.0	-100	0.0	-100	0.0	-100
Surguja	0.0	-100	0.0	-100	3.3	32
East Uttar Pradesh						
Allahabad	0.0	-100	0.0	-100	0.0	-100
Ambedkar Nagar	0.0	-100	0.0	-100	0.0	-100
Azamgarh	0.0	-100	0.0	-100	0.0	-100
Bahraich	0.0	-100	0.0	-100	0.0	-100
Ballia	0.0	-100	0.0	-100	0.0	-100
Balrampur	0.0	-100	0.0	-100	0.0	-100
Banda	0.0	-100	0.0	-100	0.0	-100
Barabanki	0.0	-100	0.0	-100	0.0	-100
Basti	0.0	-100	0.0	-100	0.0	-100

Chandauli	0.0	-100	0.0	-100	0.0	-100
Deoria	0.0	-100	0.0	-100	0.0	-100
Faizabad	0.0	-100	0.0	-100	0.0	-100
Farrukhabad	0.0	-100	0.0	-100	0.0	-100
Fatehpur	0.0	-100	0.0	-100	0.0	-100
Gazipur	0.0	-100	0.0	-100	0.0	-100
Gonda	0.0	-100	0.0	-100	0.0	-100
Gorakhpur	0.0	-100	0.0	-100	0.0	-100
Hardoi	0.0	-100	0.0	-100	0.0	-100
Jaunpur	0.0	-100	0.0	-100	0.0	-100
Kannauj	0.0	-100	0.0	-100	0.0	-100
Kanpur City	0.0	-100	0.0	-100	0.1	-97
Kanpur Dehat	0.0	-100	0.0	-100	0.0	-100
Kaushambi	0.0	-100	0.0	-100	0.0	-100
Kheri	0.0	-100	0.0	-100	0.0	-100
Kushi nagar	0.0	-100	0.0	-100	0.0	-100
Lucknow	0.0	-100	0.0	-100	0.0	-100
Maharajganj	0.0	-100	0.0	-100	0.0	-100
Mau	0.0	-100	0.0	-100	0.0	-100
Mirzapur	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
RaiBareilly	0.0	-100	0.0	-100	0.0	-100
Sahuji Maharajnagar	0.0	-100	0.0	-100	0.0	-100
Sant Kabirnagar	0.0	-100	0.0	-100	0.0	-100
Sant Ravidas Nagar	0.0	-100	0.0	-100	0.0	-100
Shrawasti	**	**	**	**	**	**
Sidharthnagar	0.0	-100	0.0	-100	0.0	-100
Sitapur	0.0	-100	0.0	-100	0.0	-100
Sonbhadra	0.0	-100	0.0	-100	5.6	250
Sultanpur	0.0	-100	0.0	-100	0.0	-100
Unnao	0.0	-100	0.0	-100	0.0	-100
Varanasi	0.0	-100	0.0	-100	0.0	-100
West Uttar Pradesh						
Agra	0.0	-100	0.0	-100	0.0	-100
Aligarh	0.0	-100	0.0	-100	0.0	-100
Auraiya	0.0	-100	0.0	-100	0.0	-100
Badaun	0.0	-100	0.0	-100	0.0	-100
Baghpat	0.0	-100	0.0	-100	0.0	-100
Bareilly	0.0	-100	0.0	-100	0.0	-100
Bijnor	0.0	-100	0.0	-100	0.0	-100
Bulandsahar	0.0	-100	0.0	-100	0.0	-100
Etah	0.0	-100	0.0	-100	0.0	-100
Etawah	0.0	-100	0.0	-100	0.0	-100
Firozabad	0.0	-100	0.0	-100	0.0	-100
GBNagar	0.0	-100	0.0	-100	0.0	-100
Ghaziabad	0.0	-100	0.0	-100	0.0	-100
Hamirpur	0.0	-100	0.0	-100	0.0	-100
Jalaun	0.0	-100	0.0	-100	0.0	-100

Jhansi	0.0	-100	0.0	-100	0.0	-100
Jotiba Phule Nagar	0.0	-100	0.0	-100	0.0	-100
Kanshiramnagar	0.0	-100	0.0	-100	0.0	-100
Lalitpur	0.0	-100	0.0	-100	0.0	-100
Mahamaya Nagar	0.0	-100	0.0	-100	0.0	-100
Mahoba	0.0	-100	0.0	-100	0.0	-100
Mainpuri	0.0	-100	0.0	-100	0.0	-100
Mathura	0.0	-100	0.0	-100	0.0	-100
Meerut	0.0	-100	0.0	-100	0.0	-100
Moradabad	0.0	-100	0.0	-100	0.0	-100
Muzzaffarnagar	0.0	-100	0.0	-100	0.0	-100
Pilibhit	0.0	-100	0.0	-100	0.0	-100
Rampur	0.0	-100	0.0	-100	0.0	-100
Saharanpur	0.0	-100	0.0	-100	0.0	-100
Shahjahanpur	0.0	-100	0.0	-100	0.0	-100
Uttarakhand						
Almora	0.0	-100	0.4	-95	0.0	-100
Bageshwar	0.0	-100	0.0	-100	0.8	-94
Chamoli	0.0	-100	2.7	-57	0.1	-99
Champawat	0.0	-100	0.0	-100	0.0	-100
Dehradun	0.0	-100	0.9	-86	6.6	-36
Garhwal Pauri	0.0	-100	1.5	-81	0.3	-98
Garhwal Tehri	0.0	-100	5.6	-46	5.2	-49
Haridwar	0.0	-100	1.4	-80	0.0	-100
Nainital	0.0	-100	0.3	-94	5.1	-58
Pithorgarh	0.0	-100	8.4	32	1.4	-84
Rudraprayag	0.0	-100	4.2	-57	0.0	-100
Udham Sing Nagar	0.0	-100	3.9	50	0.0	-100
Uttarkashi	0.0	-100	7.3	-12	1.3	-89
Bihar						
Araria	0.0	-100	0.0	-100	0.0	-100
Arwal	0.0	-100	0.0	-100	0.0	-100
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Banka	0.0	-100	0.0	-100	0.0	-100
Begusarai	0.0	-100	0.0	-100	0.0	-100
Bhabua	0.0	-100	0.0	-100	0.0	-100
Bhagalpur	0.0	-100	0.0	-100	0.0	-100
Bhojpur	0.0	-100	0.0	-100	0.0	-100
Buxar	0.0	-100	0.0	-100	0.0	-100
Darbhanga	0.0	-100	0.0	-100	0.0	-100
East Champaran	0.0	-100	0.0	-100	0.0	-100
Gaya	0.0	-100	0.0	-100	0.0	-100
Gopalganj	0.0	-100	0.0	-100	0.0	-100
Jahanabad	0.0	-100	0.0	-100	0.0	-100
Jamui	0.0	-100	0.0	-100	0.0	-100
Kathihar	0.0	-100	0.0	-100	0.0	-100
Khagadia	0.0	-100	0.0	-100	0.0	-100
Kishanganj	0.0	-100	0.0	-100	0.0	-100
Lakhisarai	0.0	-100	0.0	-100	0.0	-100

Madhepura	0.0	-100	0.0	-100	0.0	-100
Madhubani	0.0	-100	0.0	-100	0.0	-100
Monghyar	0.0	-100	0.0	-100	0.0	-100
Muzaffarpur	0.0	-100	0.0	-100	0.0	-100
Nalanda	0.0	-100	0.0	-100	0.0	-100
Nawada	0.0	-100	0.0	-100	0.0	-100
Patna	0.0	-100	0.0	-100	0.0	-100
Purnea	0.0	-100	0.0	-100	0.0	-100
Rohtas	0.0	-100	0.0	-100	0.0	-100
Saharsha	0.0	-100	0.0	-100	0.0	-100
Samstipur	0.0	-100	0.0	-100	0.0	-100
Saran	0.0	-100	0.0	-100	0.0	-100
Sheikpura	0.0	-100	0.0	-100	0.0	-100
Sheohar	0.0	-100	0.0	-100	0.0	-100
Sitamarhi	0.0	-100	0.0	-100	0.0	-100
Siwan	0.0	-100	0.0	-100	0.0	-100
Supaul	0.0	-100	0.0	-100	0.0	-100
Vaishali	0.0	-100	0.0	-100	0.0	-100
West Champaran	0.0	-100	0.0	-100	0.0	-100
Jharkhand						
Bokaro	0.0	-100	0.0	-100	0.0	-100
Chatra	0.0	-100	0.0	-100	0.0	-100
Deoghar	0.0	-100	0.0	-100	0.0	-100
Dhanbad	0.0	-100	0.0	-100	0.0	-100
Dumka	0.0	-100	0.0	-100	0.0	-100
East Singbhum	0.0	-100	0.0	-100	0.0	-100
Garhwa	0.0	-100	0.0	-100	2.5	178
Giridih	0.0	-100	0.0	-100	0.0	-100
Godda	0.0	-100	0.0	-100	0.0	-100
Gumla	0.0	-100	0.0	-100	0.0	-100
Hazaribagh	0.0	-100	0.0	-100	3.2	60
Jamtara	**	**	**	**	**	**
Khunti	0.0	-100	0.0	-100	0.0	-100
Koderrna	0.0	-100	0.0	-100	0.0	-100
Latehar	0.0	-100	0.0	-100	33.0	2438
Lohardagga	0.0	-100	0.0	-100	0.0	-100
Pakur	0.0	-100	0.0	-100	0.0	-100
Palamau	0.0	-100	0.0	-100	6.5	226
Ramgarh	**	**	**	**	**	**
Ranchi	0.0	-100	0.0	-100	0.1	-98
Sahebganj	0.0	-100	0.0	-100	0.0	-100
Saraikela	0.0	-100	0.0	-100	0.0	-100
Simdega	0.0	-100	0.0	-100	0.0	-100
West Singbhum	0.0	-100	0.0	-100	0.0	-100
East Rajasthan						
Ajmer	0.0	-100	0.0	-100	0.0	-100
Alwar	0.0	-100	0.0	-100	0.0	-100
Banswara	0.0	-100	0.0	-100	0.0	-100
Baran	0.0	-100	0.0	-100	0.0	-100

Bharatpur	0.0	-100	0.0	-100	0.0	-100
Bhilwara	0.0	-100	0.0	-100	0.0	-100
Bundi	0.0	-100	0.0	-100	0.0	-100
Chittorgarh	0.0	-100	0.0	-100	0.0	-100
Dausa	0.0	-100	0.0	-100	0.0	-100
Dholpur	0.0	-100	0.0	-100	0.0	-100
Dungarpur	0.0	-100	0.0	-100	0.0	-100
Jaipur	0.0	-100	0.0	-100	0.0	-100
Jhalawar	0.0	-100	0.0	-100	0.0	-100
Jhunjhunu	0.0	-100	0.0	-100	0.0	-100
Karauli	0.0	-100	0.0	-100	0.0	-100
Kota	0.0	-100	0.0	-100	0.0	-100
Pratapgarh	0.0	-100	0.0	-100	0.0	-100
Rajsamand	0.0	-100	0.0	-100	0.0	-100
Sawai Madhopur	0.0	-100	0.0	-100	0.0	-100
Sikar	0.0	-100	0.0	-100	0.0	-100
Sirohi	0.0	-100	0.0	-100	0.0	-100
Tonk	0.0	-100	0.0	-100	0.0	-100
Udaipur	0.0	-100	0.0	-100	0.0	-100
West Rajasthan						
Barmer	0.0	-100	0.0	-100	0.0	-100
Bikaner	0.0	-100	0.0	-100	0.0	-100
Churu	0.0	-100	0.0	-100	0.0	-100
Hanumangarh	0.0	-100	0.0	-100	0.0	-100
Jaisalmer	0.0	-100	0.0	-100	0.0	-100
Jalore	0.0	-100	0.0	-100	0.0	-100
Jodhpur	0.0	-100	0.0	-100	0.0	-100
Nagaur	0.0	-100	0.0	-100	0.0	-100
Pali	0.0	-100	0.0	-100	0.0	-100
Sri Ganganagar	0.0	-100	0.0	-100	0.0	-100
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	0.0	-100
Anand	0.0	-100	0.0	-100	0.0	-100
Aravalli	0.0	-100	0.0	-100	0.0	-100
Banaskantha	0.0	-100	0.0	-100	0.0	-100
Broach	0.0	-100	0.0	-100	0.0	-100
Chhota Udepur	0.0	-100	0.0	-100	0.0	-100
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	0.0	-100
Daman	0.0	-100	**	**	**	**
Dangs	0.0	-100	0.0	-100	0.0	-100
Gandhinagar	0.0	-100	0.0	-100	0.0	-100
Kheda	0.0	-100	0.0	-100	0.0	-100
Mahisagar	0.0	-100	0.0	-100	0.0	-100
Mehsana	0.0	-100	0.0	-100	0.0	-100
Narmada	0.0	-100	0.0	-100	0.0	-100
Navsari	0.0	-100	0.0	-100	0.0	-100
Panchmahal	0.0	-100	0.0	-100	0.0	-100
Patan	0.0	-100	0.0	-100	0.0	-100

Sabarkantha	0.0	-100	0.0	-100	0.0	-100
Surat	0.0	-100	0.0	-100	0.0	-100
Tapi	0.0	-100	0.0	-100	0.0	-100
Vadodara	0.0	-100	0.0	-100	0.0	-100
Valsad	0.0	-100	0.0	-100	0.0	-100
S K & Diu region						
Amreli	0.0	-100	0.0	-100	0.0	-100
Bhavnagar	0.0	-100	0.0	-100	0.0	-100
Botad	0.0	-100	0.0	-100	0.0	-100
Devbhoomi Dwarka	0.0	-100	0.0	-100	0.0	-100
Diu	0.0	-100	0.0	-100	0.0	-100
Gir Somnath	0.0	-100	0.0	-100	0.0	-100
Jamnagar	0.0	-100	0.0	-100	0.0	-100
Junagarh	0.0	-100	0.0	-100	0.0	-100
Kutch	0.0	-100	0.0	-100	0.0	-100
Morbi	0.0	-100	0.0	-100	0.0	-100
Porbandar	0.0	-100	0.0	-100	0.0	-100
Rajkot	0.0	-100	0.0	-100	0.0	-100
Surendranagar	0.0	-100	0.0	-100	0.0	-100
Maharashtra						
Konkan & Goa						
Mumbai City	0.0	-100	0.0	-100	0.0	-100
Mumbai Suburban	0.0	-100	0.0	-100	0.0	-100
North Goa	0.5	60	0.2	-67	0.0	-100
Raigad	0.0	-100	0.0	-100	0.0	-100
Ratnagiri	0.0	-100	0.0	-100	0.0	-100
Sindhudurg	0.0	-100	0.0	-100	0.0	-100
South Goa	1.1	175	0.0	-100	0.0	-100
Thane	**	**	**	**	**	**
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.0	-100	0.0	-100
Dhule	**	**	**	**	**	**
Jalgaon	0.0	-100	0.0	-100	0.0	-100
Kolhapur	0.0	-100	0.0	-100	0.0	-100
Nandurbar	**	**	**	**	**	**
Nasik	0.0	-100	0.0	-100	0.0	-100
Pune	0.0	-100	0.0	-100	0.0	-100
Sangli	0.0	-100	1.0	-100	1.0	-100
Satara	0.0	-100	0.0	-100	0.0	-100
Solapur	3.4	244	0.0	-100	0.0	-100
Marathwada						
Aurangabad	0.0	-100	0.0	-100	0.0	-100
Beed	**	**	**	**	**	**
Hingoli	**	**	**	**	0.0	-100
Jalna	0.0	-100	0.0	-100	0.0	-100
Latur	0.0	-100	0.0	-100	0.0	-100
Nanded	0.0	-100	0.0	-100	0.0	-100
Osmanabad	1.0	11	0.0	-100	0.0	-100

Parbhani	0.0	-100	0.0	-100	0.0	-100
Vidarbha						
Akola	0.0	-100	0.0	-100	0.0	-100
Amraoti	0.0	-100	0.0	-100	0.0	-100
Bhandara	0.0	-100	0.0	-100	0.0	-100
Buldhana	0.0	-100	0.0	-100	0.0	-100
Chandrapur	0.0	-100	0.0	-100	0.0	-100
Gadchiroli	0.0	-100	0.0	-100	0.0	-100
Gondia	0.0	-100	0.0	-100	0.0	-100
Nagpur	0.0	-100	0.0	-100	0.0	-100
Wardha	0.0	-100	0.0	-100	0.0	-100
Washim	0.0	-100	0.0	-100	0.0	-100
Yeotmal	0.0	-100	0.0	-100	0.0	-100
Odisha						
Angul	0.0	-100	0.0	-100	6.7	170
Balasore	0.0	-100	0.0	-100	0.6	-62
Bargarh	0.0	-100	0.0	-100	4.9	224
Bhadrak	0.0	-100	0.0	-100	0.0	-100
Bolangir	0.0	-100	0.0	-100	0.0	-100
Boudh	0.0	-100	0.0	-100	0.0	-100
Cuttack	0.0	-100	0.0	-100	0.0	-100
Deogarh	0.0	-100	0.0	-100	0.3	-84
Dhenkanal	0.0	-100	0.0	-100	0.0	-100
Gajapati	0.0	-100	0.0	-100	0.0	-100
Ganjam	0.0	-100	0.0	-100	0.0	-100
Jagatsingpur	0.0	-100	0.0	-100	0.0	-100
Jajpur	0.0	-100	0.0	-100	0.0	-100
Jharsuguda	0.0	-100	0.0	-100	10.7	330
Kalahandi	0.0	-100	0.0	-100	0.0	-100
Kandhamal	0.0	-100	0.0	-100	0.0	-100
Kendrapara	0.0	-100	0.0	-100	0.0	-100
Keonjhar	0.0	-100	0.0	-100	1.8	-36
Khurda	0.0	-100	0.0	-100	3.4	9
Koraput	0.0	-100	0.0	-100	0.0	-100
Malkangiri	0.0	-100	0.0	-100	0.0	-100
Mayurbhanj	0.0	-100	0.0	-100	1.3	-33
Nawapara	0.0	-100	0.0	-100	0.0	-100
Nawarangpur	0.0	-100	0.0	-100	0.0	-100
Nayagarh	0.0	-100	0.0	-100	0.0	-100
Puri	0.0	-100	0.0	-100	0.0	-100
Rayagada	0.0	-100	0.0	-100	0.0	-100
Sambalpur	0.0	-100	0.0	-100	15.5	638
Sonepur	0.0	-100	0.0	-100	0.0	-100
Sundargarh	0.0	-100	0.0	-100	0.0	-100
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	11.2	-80	216.9	416	181.1	484
North & Middle Andaman	25.4	95	10.3	-33	10.6	-42

South Andaman	51.4	257	56.9	298	35.7	64
GWB						
Bankura	0.0	-100	0.0	-100	0.0	-100
Birbhum	0.0	-100	0.0	-100	0.0	-100
Burdwan	0.0	-100	0.0	-100	0.0	-100
East Midnapore	0.0	-100	0.0	-100	0.0	-100
Hooghly	0.0	-100	0.0	-100	0.0	-100
Howrah	0.0	-100	0.0	-100	0.0	-100
Kolkata	0.0	-100	0.0	-100	0.0	-100
Murshidabad	0.0	-100	0.0	-100	0.0	-100
Nadia	0.0	-100	0.0	-100	0.0	-100
24 Pargana (N)	0.0	-100	0.0	-100	0.0	-100
Purulia	0.0	-100	0.0	-100	0.2	-90
24 Pargana (S)	0.0	-100	0.0	-100	0.0	-100
West Midnapore	0.0	-100	0.0	-100	7.8	116
SHWB & Sikkim						
Cooch Behar	0.0	-100	0.0	-100	0.0	-100
Darjeeling	0.0	-100	0.0	-100	0.0	-100
East Sikkim	0.0	-100	0.0	-100	1.7	-49
Jalpaiguri	0.0	-100	0.0	-100	1.0	-29
Malda	0.0	-100	0.0	-100	0.0	-100
North Dinajpur	0.0	-100	0.0	-100	0.0	-100
North Sikkim	0.0	-100	0.0	-100	1.6	-85
South Dinajpur	0.0	-100	0.0	-100	0.0	-100
South Sikkim	0.0	-100	0.0	-100	0.0	-100
West Sikkim	**	**	**	**	**	**
Karnataka						
Coastal Karnataka						
Dakshina Kannada	2.9	38	0.0	-100	0.0	-100
Udupi	8.3	421	0.0	-100	0.0	-100
Uttara Kannada	0.6	-48	0.0	-100	0.0	-100
NI Karnataka						
Bagalkote	0.0	-96	0.0	-100	0.0	-100
Belagavi	0.0	-100	0.0	-100	0.0	-100
Bidar	0.2	-50	0.0	-100	0.0	-100
Dharwad	0.0	-100	0.0	-100	0.0	-100
Gadag	1.3	44	0.0	-100	0.0	-100
Haveri	0.1	-92	0.0	-100	0.0	-100
Kalaburgi	0.5	128	0.0	-100	0.0	-100
Koppal	0.6	-39	0.0	-100	0.0	-100
Raichur	0.2	-52	0.0	-100	0.0	-100
Vijayapura	1.4	41	0.0	-100	0.0	-100
Yadgir	2.1	419	0.0	-100	0.0	-100
SI Karnataka						
Ballari	0.1	-94	0.0	-100	0.0	-100
Bangalore Rural	4.5	67	0.0	-100	0.0	-100
Bangalore Urban	0.2	-95	0.0	-100	0.0	-100
Chamarajanagar	0.0	-100	0.0	-100	0.0	-100
Chikaballapur	0.5	-72	0.0	-100	0.0	-100

Chikkamagaluru	2.3	14	0.0	-100	0.0	-100
Chitradurga	0.0	-100	0.0	-100	0.0	-100
Davangere	0.3	-25	0.0	-100	0.0	-100
Hassan	1.4	-29	0.0	-100	0.0	-100
Kodagu	7.9	127	0.0	-100	0.0	-100
Kolar	5.0	74	0.0	-100	0.0	-100
Mandya	0.9	-55	0.0	-100	0.0	-100
Mysuru	0.7	-51	0.0	-100	0.0	-100
Ramanagara	1.0	-62	0.0	-100	0.0	-100
Shivamogga	1.4	-4	0.0	-100	0.0	-100
Tumakuru	0.0	-100	0.0	-100	0.0	-100
Kerala						
Alappuzha	0.6	-93	0.5	-91	0.0	-100
Kannur	7.7	252	0.0	-100	0.0	-100
Ernakulam	0.1	-99	0.0	-100	0.0	-100
Idukki	3.9	-56	0.5	-91	1.8	-51
Kasaragod	23.7	887	0.0	-100	0.0	-100
Kollam	1.1	-90	0.3	-95	0.0	-100
Kottayam	0.0	-100	0.0	-100	0.0	-100
Kozhikode	4.8	92	0.0	-100	0.0	-100
Malappuram	1.2	-64	0.0	-100	0.0	-100
Palakkad	0.2	-94	0.0	-100	0.0	-100
Pathanamthitta	0.0	-100	0.0	-100	0.0	-100
Thiruvananthapuram	0.1	-99	0.0	-100	6.0	1
Thrissur	6.6	58	0.0	-100	0.0	-100
Wyand	16.8	424	0.0	-100	0.0	-100
Tamil Nadu						
Ariyalur	1.4	-94	0.6	-98	6.5	-17
Chennai	3.0	-84	0.0	-100	0.5	-95
Coimbatore	5.7	-23	0.0	-100	0.0	-100
Cuddalore	5.5	-80	0.5	-98	0.0	-100
Dharmapuri	0.0	-100	0.0	-100	0.0	-100
Dindigul	3.6	-79	2.0	-88	4.5	-12
Erode	0.0	-100	0.0	-100	0.0	-100
Kanchipuram	0.1	-99	0.0	-100	0.6	-91
Kanyakumari	0.0	-100	0.2	-98	0.6	-91
Karaikal	1.0	-98	35.9	-49	0.8	-96
Karur	0.1	-98	0.0	-100	1.3	-52
Krishnagiri	0.6	-92	0.0	-100	0.0	-100
Madurai	1.3	-87	1.1	-92	1.5	-65
Nagapattinam	10.1	-78	16.6	-72	5.8	-71
Namakkal	0.0	-100	0.0	-100	0.0	-100
Nilgiris	25.5	104	0.0	-100	0.0	-100
Perambalur	0.0	-100	0.0	-100	0.0	-100
Puducherry	4.4	-89	0.0	-100	0.0	-100
Pudukottai	17.0	14	10.0	-46	7.7	38
Ramanathapuram	1.9	-91	12.4	-50	0.8	-92
Salem	0.8	-90	0.0	-100	0.0	-100
Sivaganga	13.3	-10	1.5	-93	1.8	-67

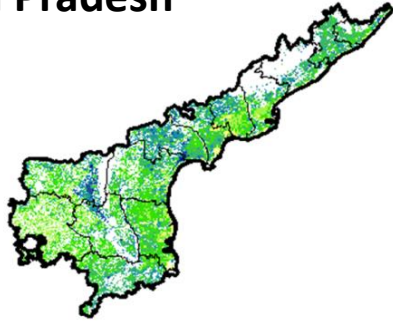
Thanjavur	12.2	-41	13.5	-54	14.6	100
Theni	2.1	-82	0.6	-92	1.6	-57
Tirunelveli	7.6	-65	0.7	-96	10.0	-23
Tirupur	7.8	21	0.2	-98	0.0	-100
Tiruvallur	1.1	-93	0.0	-100	0.1	-99
Tiruvannamalai	2.5	-78	0.0	-100	0.0	-100
Tiruvarur	9.6	-69	31.1	-29	18.4	47
Toothukudi	0.1	-99	1.2	-92	1.0	-87
Trichy	0.5	-96	3.1	-80	2.5	-39
Vellore	0.1	-99	0.0	-100	0.0	-100
Villupuram	6.9	-59	0.0	-100	0.0	-100
Virudhunagar	1.4	-90	0.1	-99	0.0	-100
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	2.0	81	0.0	-100	0.0	-100
Krishna	0.9	-17	0.0	-100	0.0	-100
Nellore	1.2	-92	0.0	-100	0.0	-100
Prakasam	2.3	-49	0.0	-100	0.0	-100
Sirkakulam	0.0	-100	0.0	-100	0.0	-100
Visakhapatnam	0.0	-100	0.0	-100	0.0	-100
Vizianagram	0.0	-100	0.0	-100	0.0	-100
West Godavari	0.0	-100	0.0	-100	0.0	-100
Rayalaseema						
Anantapur	0.0	-98	0.0	-100	0.0	-100
Chittoor	7.9	18	0.0	-100	0.0	-100
Cuddapah	0.8	-69	0.0	-100	0.0	-100
Kurnool	0.9	123	0.0	-100	0.0	-100
Telangana						
Adilabad	0.0	-100	0.0	-100	0.0	-100
Hyderabad	0.9	133	0.0	-100	0.0	-100
Karimnagar	0.0	-100	0.0	-100	0.0	-100
Khammam	0.0	-100	0.0	-100	0.0	-100
Mehabubnagar	0.4	84	0.0	-100	0.0	-100
Medak	0.2	-17	0.0	-100	0.0	-100
Nalgonda	0.2	-71	0.0	-100	0.0	-100
Nizamabad	0.0	-100	0.0	-100	0.0	-100
Rangareddy	0.2	-8	0.0	-100	0.0	-100
Warangal	0.0	-100	0.0	-100	0.0	-100

Legends

	(20% or more) excess rainfall		(-60 to -99 %) scanty rainfall
	(-19 to +19%) normal rainfall		(-100%) no rainfall
	(-20 to -59%) deficient rainfall	**	Data not available

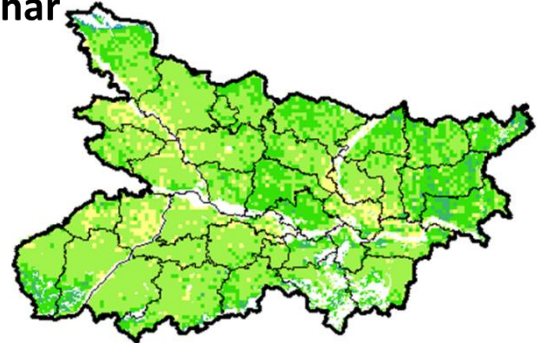
**NOAA/AVHRR NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
5th January 2017 FOR DIFFERENT STATES**

Andhra Pradesh



Agriculture vigour is moderate over southern part whereas, northern parts and patches in central region shows good to very good NDVI in the state of Andhra Pradesh.

Bihar



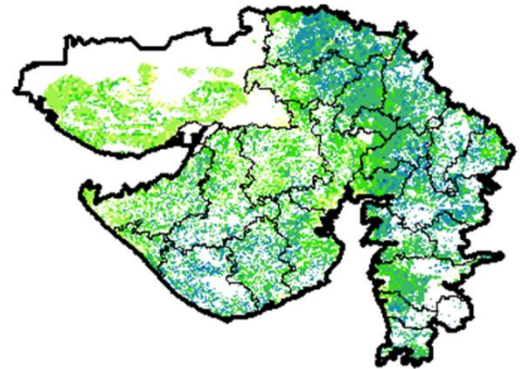
Agriculture vigour is moderate over entire state of Bihar.

Chhattisgarh



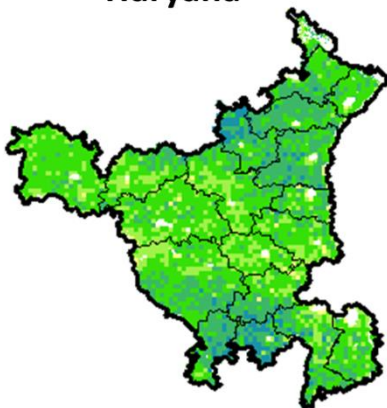
Agriculture vigour is good in southern region whereas, moderate vigour is seen in central and northern region of Chhattisgarh.

Gujarat



Moderate NDVI values are observed in patches in Kutch whereas, good to very good NDVI is observed in patches in Saurashtra and Gujarat.

Haryana



Moderate agriculture vigour is observed over entire state of Haryana, good vigour is seen in patches in north and south part of Haryana.

Himachal Pradesh



Agriculture vigour is moderate to good over Himachal Pradesh.

Jammu & Kashmir



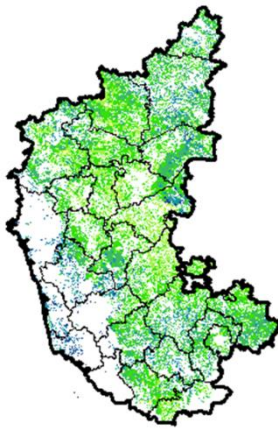
Agriculture vigour is moderate over entire state of Jammu & Kashmir.

Jharkhand



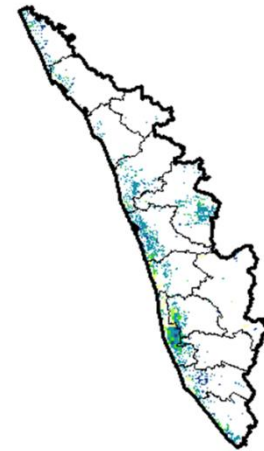
Agriculture vigour is good over patches in western region of Jharkhand whereas, remaining states shows moderate NDVI values.

Karnataka



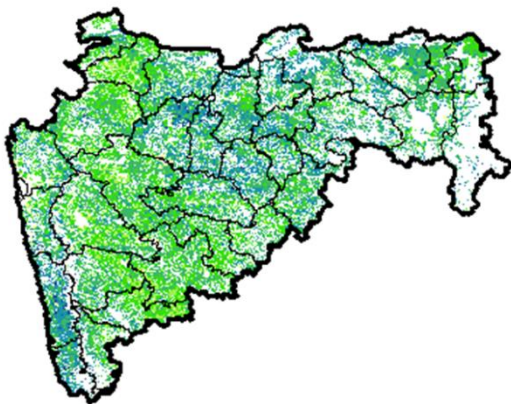
Agriculture vigour good in patches over southern and northern region of the state whereas rest of the state shows moderate vigour.

Kerala



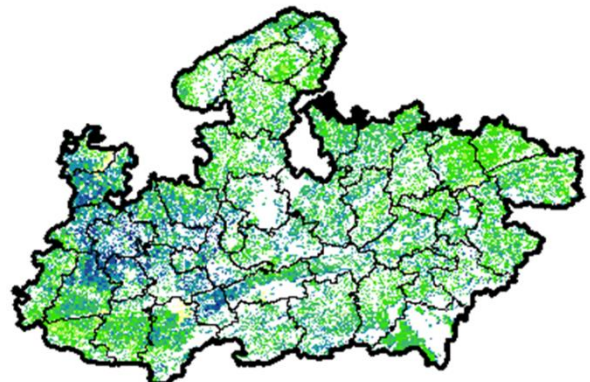
Agriculture vigour is good over entire state of Kerala except central part which shows moderate NDVI values.

Maharashtra



Agricultural vigour is moderate over central Maharashtra whereas, good to very good vigour is observed in the north, Konkan and eastern regions.

Madhya Pradesh



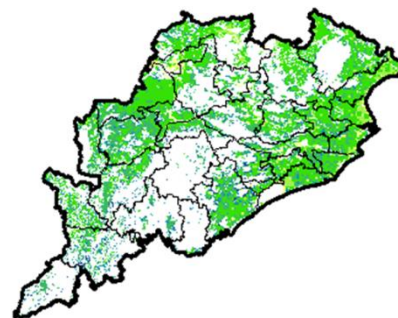
Agriculture vigour is good to very good over patches in western and central region of the state of Madhya Pradesh whereas, rest of the state shows moderate vigour.

North East Region



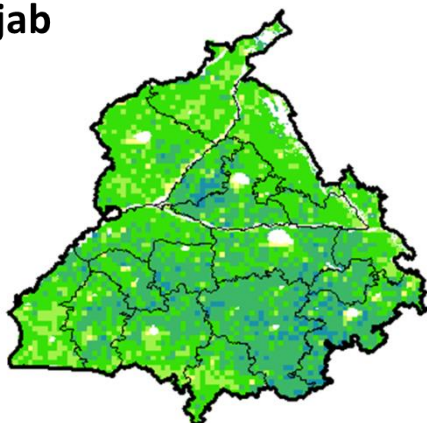
Agriculture vigour is good & very good over north-east states of country, whereas few patches in Assam show moderate vigour.

Odisha



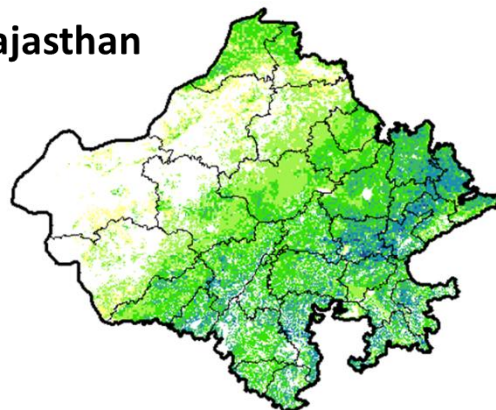
Agricultural vigour is good over many patches over of Odisha whereas, moderate vigour is observed over the entire state.

Punjab



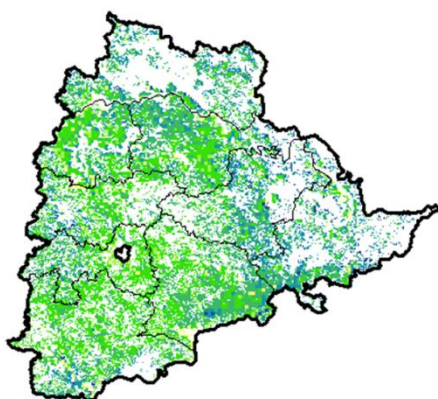
Agricultural vigour is good in patches over central and southern parts of Punjab, whereas rest of the state shows moderate vigour.

Rajasthan



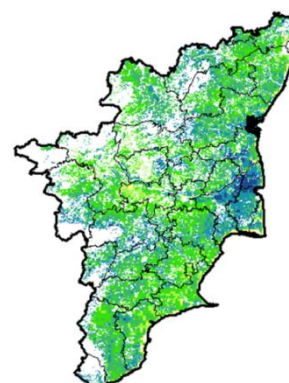
Agriculture vigour is good to very good over eastern and southern Rajasthan whereas, moderate vigour is observed over entire region.

Telangana

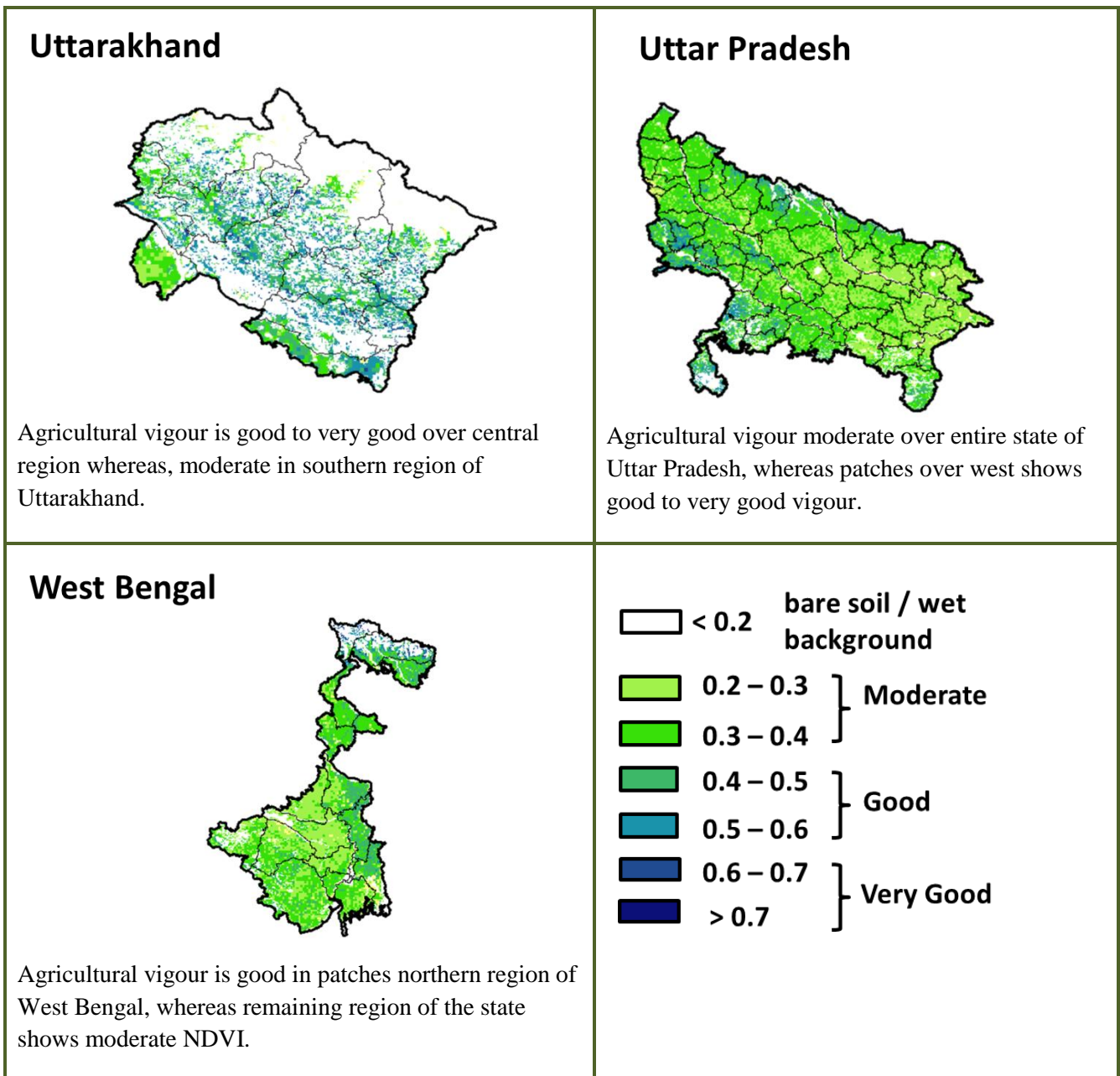


Agriculture vigour is good to very good over northern and eastern region of Telangana whereas, moderate vigour is observed in southern and central region.

Tamil Nadu



Agricultural vigour is moderate over most region of Tamil Nadu, whereas northern and patches in central region shows good to very good NDVI.



* For New Delhi NOAA/AVHRR NDVI COMPOSITE Map is not available due to some problem in data set.

Annexure III

- Assam**
- Winter brinjal:** Pusa Kranti, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, Pant Samra.
- Tomato :** Punjab Chhuhara, S-12, Punjab Kesri, Pusa Early Dwarf, Sioux, Pusa Ruby, VC- 48-1, Arka Abha (BWR-1), Arka Alok (BWR-5), BT-1, Bilahi-1, Bilahi-2).
- Potato :** Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri.
- Onion :** Pusa Red, Pusa Ratnar, Pusa white (Round), Pusa white (Flat), N-53, Agrifound Light Red, Punjab Red Round, Pusa Madhuri, Arka Niketan.
- Cauliflower :** Early Kunwari, Pusa Katki and Pusa Deepali (for early maturity).
Improved Japanese, Pusa Synthetic, Pusa Snowhall (for mid maturity).
Snowball-16, Pusa Snowball, K-1 and Hissar 1 (for late maturity) etc.
- Cabbage :** Golden Acre, Pride of India, Pusa Mukta (Sel – 8) (for early maturity).
Drum Head and Eclipse Drum Head (for late maturity).
- Knol-Khol :** White Vienna (for early maturity).
Purple Viena (for late maturity).
- Odisha:**
- Green pea:** Rachana, Arkel. and T -163.
- Mustard:** Parbhathi, Anuradha, TS-29 & M-27.
- Garlic:** Phawari, Rajalbadi, Jamnagar and G-282

Potato: Kufri Chandramukhi, Kufri Chamatkar, Kufri Jyoti, Kufri Sinduri and Kufri Alankar, etc
Greengram- TARM1, OUM11-5, Hum-1
Blackgram-PU-19, LBG-17
Gram-Radhey, Annegiri, Sweta, Bharati, JG 11
Groundnut:are Smruti, AK 12-24, JL-24.

Bihar

Sesame : Kanak, kalika, Uma, Usha, Tilottama, Neelima and Prachi
Green gram : K -851, PDM -54, PDM -11, OUM 11-5
Balck gram : T-9, Pant-U-19. Pant –U-30, Pant –U-11
Niger : Deomali
Horsegram : Urmi, DS 1-2-2, DS 1-2

Jharkhand

Mustard: Shivani, Varuna, Pusa bold, Kranti, Pusa jaikisan , Vardan etc.
Potato: Kufri Ashoka, Kufri Pukhraj, Kufri Lalima, Kufri Pushkar and Kufri Kanchan.
Toria: BR-23,T.-9, P.T. 303, Panchali and Bhavani.
Gram: KAK-2, ICC-2, HK94-134(Kabuli) and Pusa 256, Pusa 372, Pant G-114, KWR 108, ICC 37.
Lentil:P.L.- 406, P.L.-639, D.P.L.-15, D.P.I.- 62 etc.
Green pea: Arkel or Azad pea.
Wheat: HDR-77, K-8027, C-306, Birsa genhu – 3 etc. HDR-77, K-8027, C-306, Birsa genhu – 3 etc.
Linseed:Sweta, Shubhra, T-397 etc.

West Bengal

Coconut: Eastcoastal, Hazari
Banana:Mortoman, Chapa, Kathali, Singapuri,
Mustard:Varuna, Sita and Bhagirathi.
Jute : Chaitali, Basudev, Naveen, Sonali, Sobujsona, Shyamali etc.
Cabbage :Pride of India, Pusa early, Kranti.
Cauliflower : Jawhar moti, Bharat Jyoti, Early banaras.

Uttarakhand

Wheat:HS-562, VL-616, VL-829, VL-802, VL-802
Onoin:VL-Pyaj-3,Nasik Red,Pusa Red
Pea: Vivek 10,Vivek 11,Pant 3,
Radish:Meenu early, Japanese white, PusaHimani.
Carrot:PusaVrishi,
Rai:Varuna, Rohini, Krishna, Kanti, Vardan, Vaibhav, Basanti, Narendra, Early rai-4, Urvashi and varieties
Yellow Mustard: Ragini, Binoy (B-9), Pant peeli Sarso-1.

Jammu and Kashmir

Wheat: PBW-175, PBW-396, RSP-81(Jitto).
Pea: AP-1, Bonnevillea, Rachna and Arkel
Chickpea: K-468, Gourav
Lentil: L-4147, L-9/12,PL-406.
Berseem:Vardan, mascavi, pusa giant, BL-1
Potato: Kufri Badshah, K.Sinduri, K.Chipsona & K.Sona
Gram: C-235,Gaurav,K-468,SCS-3,PBG-1
Toria: RSPT-1 and RSPT-2

Himachal Pradesh

Cauliflower: snowball and Giant snowball.
Radish:Japanese white, Chinese pink and mino early white
Turnip: PTWG-1
Carrot:Pusakesar
Peas :Mater ageta-6 (early variety).
Cabbage:Pride of India, golden achor and hybrid

East Uttar Pradesh

Wheat: PVW-343, UP-2338, WH-542, K-9107, K-9006, HP-1731, NW-1012, UP-2382, HUW-468, PVW-443, HD-2733, HD-2824, K-307, K-9423, NW-1067, KRL-210, KRL-213 , PBW-323, CBW-38, DBW-39, UP2332 and HUW510, C-306, K-65,78,8027 and HUW-533.
Mustard: varuna, Rohini, kranti, krushna, vardan, vaibhav, narendra rai (8501).
Onion: Kalyanpur Lal gol, Pusa ratnakar, Agrifound lite red, bargandi, KP, Orient, Rosi.
Jou: Azad, K-141/11.
Turmeric:Kasturi, Paspu, Amlapuram, Madhukar, Sugna, Rajendra
Ginger -suprabha, suruchi, surbhi and Himgiri

Moong: Type-27, 56

Potato: Kufri Ashoka, Kufri Chandramukhi and Kufri Jawahar (Improved varieties of potato) Kufri Badshah, Kufri Satlaj, Kufri Khalima (inferior varieties), Kufri Ashoka, Kufri Chandramukhi, Kufri sadabahar.

Gram: JCP-105, K-850, Pusa-256, Avrodhi, Pusa-256, KWR-108, DCP-92-3, KDG-1168, K-850, and Kabuli chana: HK-94-134. Mustard: Narendra ageti, rai-4, Varuna (T59), Basti (Pili), rohini, Maya, Narendra swarna-rai-8(pili), Narendra rai (NDR-8501), vaibhav.

Kabuli gram: chatmatkar, Pusa-1003, Subhra as good varieties.

Pea: Rachna, Pantmatar-5, Aparna Malviya Matar-2, Malviya Matar-15, Shikha and Sapna are good varieties.

Radish: kalyanpur No.1, Pusa Rashmi, Hisar selection-1, Japani Safed, pusa Chetaki, Pusa Himani, Pusa deshi, Arka Nishant and Jaunpuri.

Cabbage: Pusa snowball, Pusa snowball II, Snowball 16 and Pusa snowball K1

West Uttar Pradesh

Wheat: magahar, mandakini, C-306, Loak-1, k-9465, and kathia meghdoot, H.D. 2687, H.D. 2851, H.D. 2894, H.D. 2967, H.D. 3086, D.B.W.-17.

Barseem: V.L.1, V.L.10, maskavi, jai, K-8027, K-9565, Mandakini.

Baby corn: M.H.-4.

Mustard: Urvashi, Rohini, Maya, Giriraj, Vardan, Vaibhav

Linseed: Parvati, sharda, Padmini

Vegetable pea: Azad-3, Aakril

Gram: Zaki-9218, KGD-1168, KWR-108, Uday

Pea: KPRM-522, KPRM-400, Vikas, Prakash

Lentil: DPL-62, Malika

Potato: Kufri Badshah, Kufri Bahar, Kufri Aanand, Chipsona-1, Chipsona-2, Chipsona-3.

Punjab

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), COH-119, CoJ-88, CoS-8436 for and CoJ-89, CO118, COJ85, COJ64.

Onion: Punjab Naroya, Punjab White and PRO 6.

Radish: Punjab Pasand and Japanese white.

Turnip: L-1.

Carrot: Punjab Black Beauty, Punjab Carrot Red and PC-34.

Tomato: TH-1, Punjab Ratta, Punjab NR 7, Punjab Chhuhara, Punjab Upma, Castle Rock.

Okra: Punjab-8 and Punjab-7

Cauliflower: Pusa Snow Ball-1, Pusa Snow Ball K-1

Wheat: PBW 725, PBW 677, HD-3086, WH 1105, PBW 621, HD 2967.

Kabuli gram: L 552, L 550 & BG-1053.

Raya: RLC3, PBR 357, PBR 210, RLC-1, , RLM-619, PBR-91

Gram: C 235, HC 5

un-irrigated/rainfed (HC 1)

Delhi

Wheat: H.D. 2687, H.D. 2851, H.D. 2894, H.D. 2967, H.D. 3086, D.B.W.-17

Gram: Kabuli type - Pusa 267, Pusa 1003, Pusa Chamatkar; local type – C235, Pusa 246, P.B.G. 1, Pusa 372.

Pea: Pusa Pragati, Arkel, Azad Matar-3, Pant Matar-3 and Bournville.

Potato: Kufri Badshah, Kufri Bahar, Kufri Aanand, Chipsona-1, Chipsona-2, Chipsona-3.

East Rajasthan:

Wheat: Raj-1555, Raj-3765, Lok-1, WH-147, GW-190, GW-322 and GW-273. The suitable varieties for unirrigated wheat are HI-1500 and HI-1531. Raj-4037, Raj-3777, Raj-4120, Raj-4037, Raj-4069, Raj-4238 and MP-3288.

Barley: RD-2552, RD-2052, RD-2035, RD-2503, RD-2715, RD-2660, RD-2508 and Jyoti, RD 2668

Gram: RSG 44, Dahod yellow, GNG 16, ICCV 10, RSG 888, GNG 469 and Pratap chana 1, RSG-895, RSG-973, RSG-896, RSG-902, RSG-991 and GNG-1581

Lentil: T 36, BL 406, Sihore 74-7 and K 75

Sorghum: CSH-6, CSH-9, CSV-10, CSV-15, TG37-A, DH-86, Pratap Mungfali-1.

Maize: Aravali Makka-1, Pratap Makka-1, Pratap Makka-5, Pratap Hybrid Maize-1, Pratap Hybrid Maize-2 and bio-9637, Hybrid varieties are-Mahi Dhawal, PEHM- 2, Pratap Hybrid Maize-1, Pratap Makka-3, Pratap Makka-5, Bio-9637, Bio-9681, Pratap HQPM-1, Pratap Hybrid Maize-3, Pratap Makka-9, Ageti-76, Bassi Selected, Mahi Kanchan

Greengram: RMG-62, RMG-268. RMG-492 & RMG-344, IPM-02-3.

Pea (early): Arkil, Hara bona, VL-3, Jawahar Matar-4, Matar Ageti-6 improved varieties.

Cauliflower: Pusa snow ball K-1, Hisar-1, Dania and Selection-7 are improved varieties.

Carrot: Pusa Keshar is improved variety.

Mustard: Pusa jai kisan, RH-30, Pusa bold, Laxmi, kranti, Pusa Jai Kisan, PR-15 (Kranti), Vashundra, RRN 573, RGN-73, Bio-902 (Pusa Jaikisan), Aashirwad, RH-9304 (Vasundhara), RH-9802 (Swarn Jyoti), RH-8812 (Laxmi).

Radish: Japanese white & hill queen.

West Rajasthan

Wheat: Raj-3077, Raj-3777, Raj-4037, Raj-1482, WH-147 and Loak-1.

Jou:RD-2052, RD-2035, RD-57, RD-31, and Bilada-2, RD-2660, RD-2552, RD-2592 or Mald varieties RD-2503, DWRUB-52(timely sowing) or DWRUB-64(late sowing)

Cumin: RZ-19, RZ-209, GG-4, RZ-223.

Fenugreek :RMt 1 & RMt305.

Bhindi: Ark Anamika, varshauphar, Parbhanikranti, pusamakhmali.

Groundnut: HNG-123, HNG-69, ICHG-00440, HNG-10, TG-37 A, Girnar-2, R.G.-425, GG-20, TG-39.

Gram: c-235, RSG-44, GNG-663(vardan), RSG-888, GNG-469(samrat), GNG_1581(gangour), for kabulichana-GNG-1499(gouri) and GNG-1292

Mustard: RGN-13, RGN-73, Laxmi, Pusa bold, RGN-298, RGN-229, RGN-48, barni (timely sowing) RGN-145, RGN-236 (for late sowing), Bio-902, T-59, Pusa bold, Arawali and RGN-48,

Radish: Japanese white & hill queen.

Garlic: lava, maleva

Onion: Pusa red, Nasik red, Udaipur-102, pusa white flate

Madhya Pradesh

Wheat: (Irrigated- JW 1203, 1215, HI 1544).

Non irrigated- JW 3288, 3173.HI-1500, HI- 1531, HW-2004, JWS-17.

Gram: JG 130, JG 218, JG 11, JG 16,JG 6, JG 315, RVJ 202,JAKI-92-18, RVG-201, RVG-203.

Garlic:G 282, 223.

Lentil:RVL 31, JL 2.

Mustard: Pusa Jaikisan, RH-749, RH-406, IJ-31, NRCHB-101, RVM- 1, RVM-2.

Chhattisgarh

Mustard:Shiwani, Varuna, Pusa Bold, BR-40.Mustard.

Wheat:Lok-1, W.H. 147, Kanchan & Raj,C 308,Sujata, H.W. 2004, Ratan, H.I.-8627 & H.I. 1531.

Linseed:R.L.C. 92 (Indira Alsi), Dipika (R.L.C.-78), Indira Alsi (R.L.C.-81), Kartika (R.L.C.-76), Jawahar 552* (R.L.C.-552),Kiran (R.L.C.-6)*.

Safflower:J.S.F.-1, J.S.I-7, J.S.H.-129.

Sugarcane:CO 86032, CO 419, CO 1305, CO J 86-141, CO 6304, CO 8338, CO 6217, CO 775, CO J 2087.

Gujarat

Watermelon: Sugar Bebi, Ashahi Pameto, Madhu, Jyoti, Pusa Bedana (Seedless).

Karnataka

Sugarcane: CO-86032, 740, 671.

Andhra Pradesh

Sorghum:CSH-9,CSH-13,CSH-14,PSV-15,PSV-19

Green gram:LGG 407 LGG 450 LGG 460 MGG 295 ML 267, LGG 410, TM 96-2.

Field bean:TFB-1 TFB-5

black gram: LBG-752, LBG-20, T-9, LBG-623, PU-31, LB-402, LBG-709 and LBG-787.

Bengal gram: JG-11, LBEG-7, JG-130. Nadyal-1 and swetha.

Telangana

Cotton:American Cotton varieties,Desi Cotton varieties (G. arboreum. L and G. herbaceum. L, Intra/Inter – specific Cotton hybrids,Bt. cotton.