

National Agromet Advisory Service Bulletin

Thursday 5th March 2015

(For the period 5th to 10th March 2015)



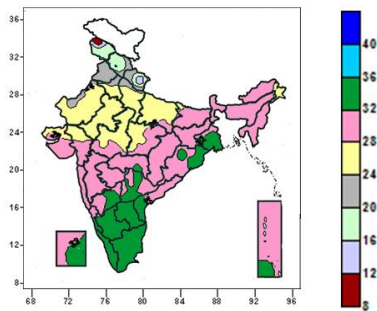
Issued by

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



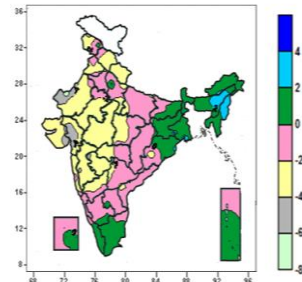
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 04.03.2015

Actual Mean Maximum Temperature (°C) in India for the week ending 04.03.2015



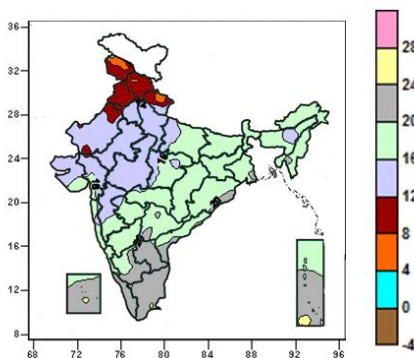
- 28 to 36°C over the country except Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana & Delhi Rajasthan, many parts of Uttar Pradesh, West Madhya Pradesh, few parts of Gujarat, East Madhya Pradesh, isolated parts of Bihar, Arunachal Pradesh.
- 24 to 28°C over East Rajasthan, many parts of Haryana & Delhi, Uttar Pradesh, West Rajasthan, West Madhya Pradesh, few parts of Gujarat, East Madhya Pradesh, isolated parts of Bihar, Arunachal Pradesh.
- 20 to 24°C over Punjab, few parts of Uttarakhand, Haryana, isolated parts of Himachal Pradesh West Rajasthan and West Uttar Pradesh.
- 16 to 20°C over many parts of Himachal Pradesh and Jammu & Kashmir.
- 12 to 16°C over isolated parts of Jammu & Kashmir.
- 8 to 12°C over isolated parts of Jammu & Kashmir.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 04.03.2015



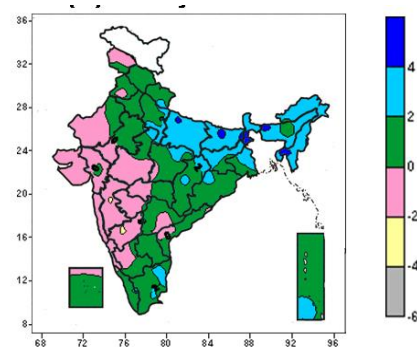
- -8 to -4°C missing few parts of Gujarat, isolated parts West Rajasthan.
- -4 to 0°C over entire country except Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Tripura, Mizoram, many parts of Bihar, Assam, Odisha, Tamil Nadu, Kerala, Andaman & Nicobar Islands, few parts of West Rajasthan, Gujarat, South Interior Karnataka, Lakshadweep Islands and isolated parts of Jammu & Kashmir, West Uttar Pradesh, West Rajasthan and Rayalaseema.
- 0 to 2°C over Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Tripura, Mizoram, many parts of Bihar, Assam, Odisha, Tamil Nadu, Kerala, Andaman & Nicobar Islands, few parts of South Interior Karnataka, Lakshadweep Islands and isolated parts of Jammu & Kashmir, West Uttar Pradesh, Rayalaseema.
- 2 to 4°C over many parts of Nagaland and Manipur, few parts of Assam.

Actual Mean Minimum Temperature (°C) in India for the week ending 04.03.2015



- 0 to 4°C over isolated parts of Jammu & Kashmir
- 4 to 8°C over few parts of Jammu & Kashmir, isolated parts of Himachal Pradesh, Uttarakhand.
- 8 to 12°C over Punjab, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, few parts of West Rajasthan and isolated parts of Haryana & Delhi.
- 12 to 20°C over entire country except Punjab and

Mean Minimum Temperature (°C) Anomaly in India for the week ending 04.03.2015



- -4 to -2°C over isolated parts of Madhya Maharashtra and North Interior Karnataka.
- -2 to 0°C over Konkan & Goa, Marathwada, Coastal Karnataka, many parts of Jammu & Kashmir, Madhya Maharashtra, West Rajasthan, Gujarat State, West Madhya Pradesh, Interior Karnataka, few parts of East Madhya Pradesh, Vidarbha, East Rajasthan, Telangana, Coastal Andhra Pradesh, and

Kerala, many parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Rayalaseema, Tamil Nadu, South Interior Karnataka, Lakshadweep, Andaman & Nicobar Islands, few parts of West Rajasthan, isolated parts of Haryana & Delhi, Coastal Odisha, Gangetic West Bengal, Telangana and Coastal Andhra Pradesh.

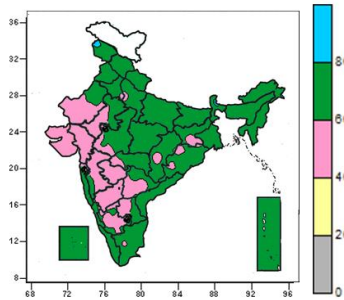
- 20 to 24⁰C over Kerala, many parts of Rayalaseema, Tamil Nadu, South Interior Karnataka, Lakshadweep, Andaman & Nicobar Islands and isolated parts of Coastal Odisha, Gangetic West Bengal, Telangana and Coastal Andhra Pradesh.
- 24 to 28⁰C over isolated parts of Lakshadweep and Andaman & Nicobar Islands.

isolated parts of Punjab, Kerala and Lakshadweep.

- 0 to 4⁰C over entire country except, Konkan & Goa, Marathwada, Coastal Karnataka, many parts of Jammu & Kashmir, Madhya Maharashtra, West Rajasthan, Gujarat State, West Madhya Pradesh, Interior Karnataka, few parts of East Madhya Pradesh, Vidarbha, East Rajasthan, Telangana, Coastal Andhra Pradesh, Gangetic West Bengal, isolated parts of Punjab, Kerala, Lakshadweep, Assam, Tripura, Mizoram, East Uttar Pradesh and Bihar.
- 4 to 6⁰C over few parts of Gangetic West Bengal, isolated parts of Assam, Tripura, Mizoram, East Uttar Pradesh and Bihar.

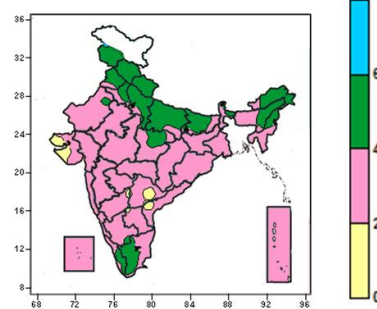
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 04.03.2015

Relative Humidity (%) over India for the week ending 04.03.2015



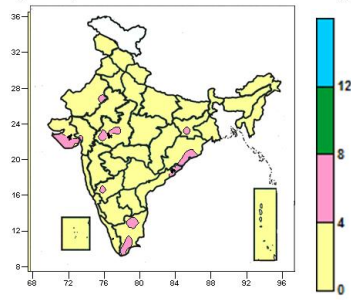
- 80 to 100% over isolated parts of Jammu & Kashmir.
- 60 to 80% over entire country except Gujarat State, North Interior Karnataka, many parts of Rajasthan, Marathwada, Telangana, South Interior Karnataka, few parts of Rayalaseema, West Madhya Pradesh, Jharkhand, isolated parts of Jammu & Kashmir, Haryana & Delhi, West Uttar Pradesh, Odisha, Chhattisgarh, Konkan, South Interior Karnataka and Tamil Nadu.
- 40 to 60% over Gujarat State, North Interior Karnataka, many parts of Rajasthan, Marathwada, Telangana, South Interior Karnataka, few parts of Rayalaseema, West Madhya Pradesh, Jharkhand, isolated parts of Haryana & Delhi, West Uttar Pradesh, Odisha, Chhattisgarh, Konkan, South Interior Karnataka and Tamil Nadu.

Cloud amount (okta) over India for the week ending 04.03.2015



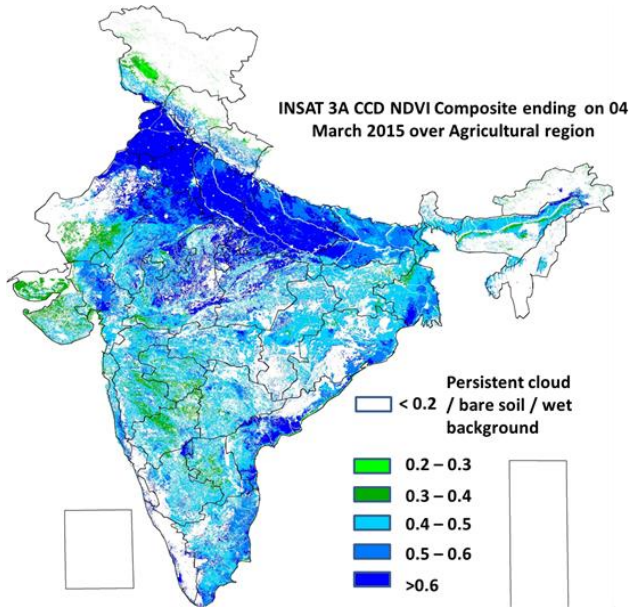
- 4 to 6 okta over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Nagaland, many parts of Uttara Pradesh, Haryana, & Delhi, Punjab, Arunachal Pradesh, Tamil Nadu and Kerala, few parts of Assam, Manipur, East Madhya Pradesh, Sikkim, isolated parts of Sub-Himalayan West Bengal and West Rajasthan.
- 2 to 4 okta over entire country except Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Nagaland, many parts of Uttar Pradesh, Haryana, & Delhi, Punjab, Arunachal Pradesh, Tamil Nadu and Kerala, few parts of Assam, Manipur, East Madhya Pradesh and Sikkim, Saurashtra & Kutch, isolated parts of Sub-Himalayan West Bengal, West Rajasthan, Andhra Pradesh, Telangana and North Interior Karnataka.
- 0 to 2 okta over few parts of Saurashtra & Kutch, isolated parts of Andhra Pradesh, Telangana and North Interior Karnataka.

Wind speed (knots) over India for the week ending 04.03.2015



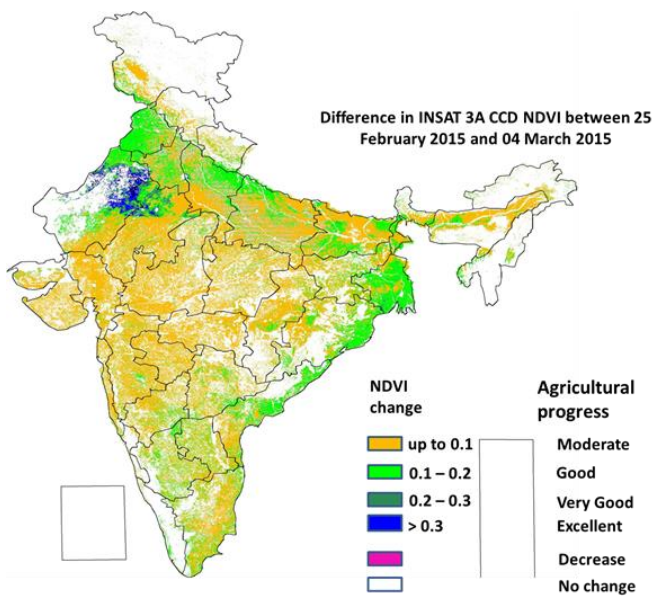
- 4 to 8 knots over many parts of Saurashtra, few parts of Tamil Nadu and isolated parts of West Rajasthan, West Madhya Pradesh, Jharkhand, Coastal Andhra Pradesh, Odisha and North Interior Karnataka.
- 0 to 4 knots over entire country except many parts of Saurashtra, few parts of Tamil Nadu and isolated parts of West Rajasthan, West Madhya Pradesh, Jharkhand, Coastal Andhra Pradesh, Odisha and North Interior Karnataka.

INSAT 3A CCD NDVI COMPOSITE ENDING ON 4th MARCH 2015 OVER AGRICULTURAL REGION OF INDIA



- Very good (NDVI > 0.6) agricultural vigour is observed over Punjab, Haryana, Uttar Pradesh a few patches in West Madhya Pradesh, Rajasthan, southern parts of Gangetic West Bengal, central Gujarat, north western parts of Rayalaseema and coastal region of Andhra Pradesh. Vegetation is good (NDVI: 0.4 - 0.6) over Bihar, East Rajasthan, Konkan & Goa, Karnataka, Jharkhand, Chhattisgarh, Vidarbha, Telangana, Tamil Nadu and coastal parts of Odisha. The NDVI remained within the range of 0.3 to 0.4 over few parts in Madhya Maharashtra, Saurashtra and North Interior Karnataka.

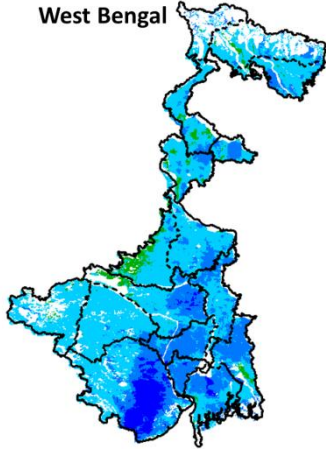
Difference in INSAT 3A CCD NDVI between 25th February 2015 and 4th March 2015



- Very good progress in NDVI was observed in northern parts of East and West Rajasthan. Good progress (up to 0.2) in NDVI was observed over Punjab, parts of Haryana, east and west Uttar Pradesh, Chhattisgarh, Telangana, Tamil Nadu, south interior of Karnataka, Rayalaseema, Bihar, coastal parts of Odisha and Gangetic West Bengal and coastal parts of Andhra Pradesh. Not much change was observed in Madhya Pradesh, Gujarat state and Maharashtra.

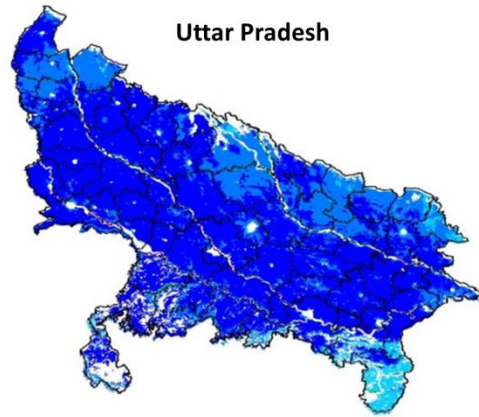
INSAT 3A CCD NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON 04th MARCH 2015 FOR DIFFERENT STATES

West Bengal



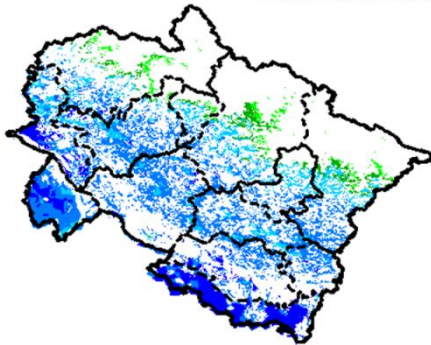
Agricultural vigour is good over most of the central parts of West Bengal, whereas southern part show higher values of NDVI varying from 0.4-0.6.

Uttar Pradesh



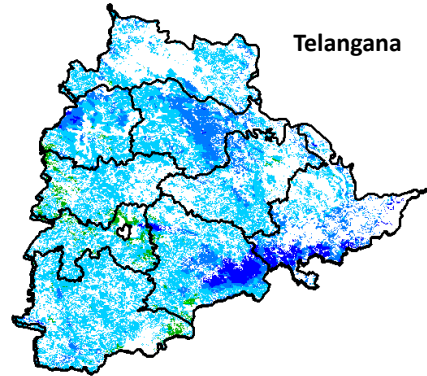
Agricultural vigour is good over the entire state of Uttar Pradesh where NDVI values varies from 0.5 -0.6.

Uttarakhand



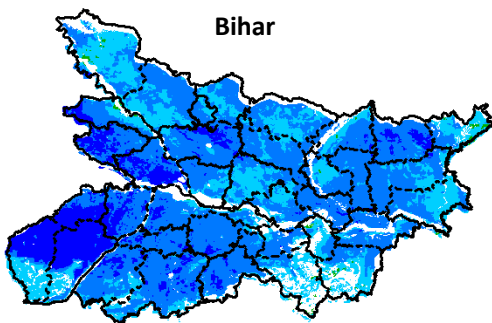
NDVI values vary from 0.2 - 0.5 over Uttarakhand. Higher (>0.6) values are seen in the southern and central part of Uttarakhand.

Telangana



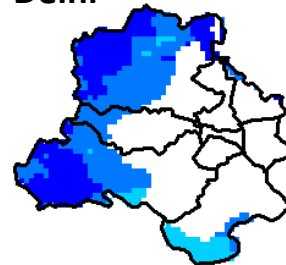
Agricultural vigour is good in pockets of eastern Telangana where NDVI values vary from 0.5 - 0.6. In the southern and western parts of the Telangana values of NDVI varies from 0.3- 0.5.

Bihar



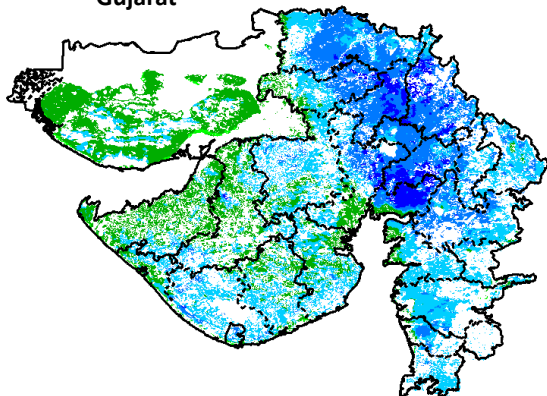
The entire state of Bihar shows comparatively a high value (0.4-0.6) of NDVI, except for few pockets in south eastern and north western Bihar region.

Delhi



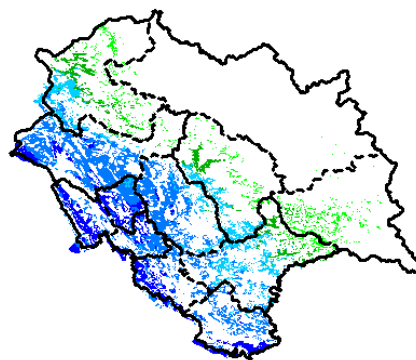
Agriculture vigour is good over western part of Delhi. NDVI values lies between 0.4-0.5. NDVI values are normal over central and western part of the state.

Gujarat



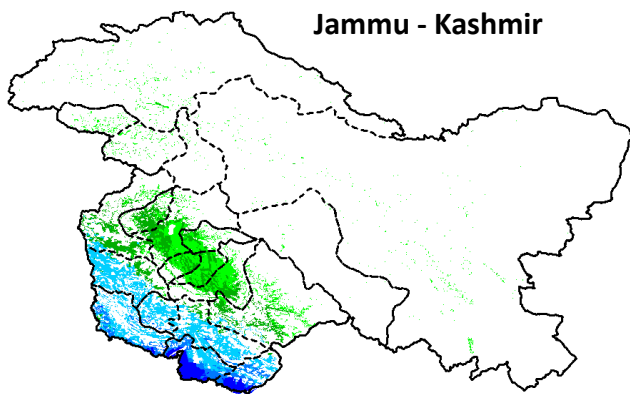
Agriculture vigour is good over parts of Eastern, northern Gujarat and southern Saurashtra where NDVI values lies between 0.4-0.5. Whereas normal NDVI is observed in Kutch and central Saurashtra.

Himachal Pradesh



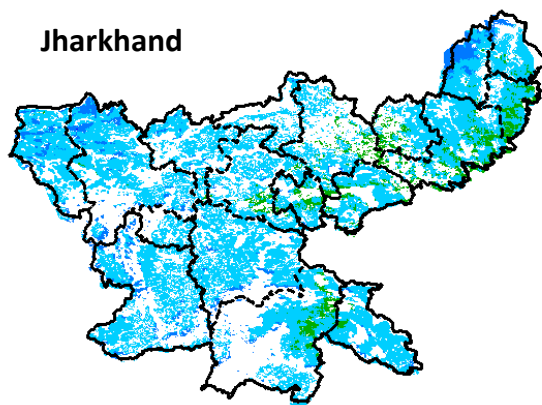
Agriculture vigour is good over southern and south western parts of Himachal Pradesh with NDVI values varying between 0.4-0.6. Whereas, isolated patches of normal NDVI are observed in the state.

Jammu - Kashmir



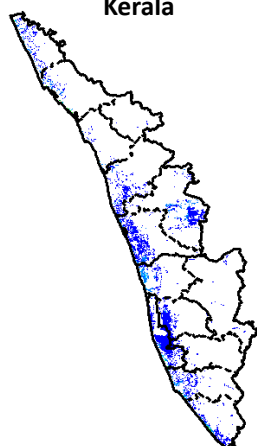
Agriculture vigour is normal all over Jammu and Kashmir. NDVI values vary in between 0.4-0.5 in south western parts.

Jharkhand



Agriculture vigour is good 0.4-0.5 over entire state of Jharkhand.

Kerala

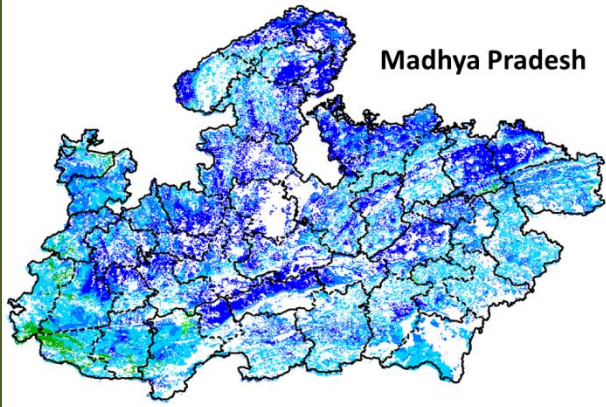


In central and south coastal parts of Kerala show NDVI values are greater than 0.6, whereas rest of agricultural vigour of Kerala shows good values of NDVI.

Haryana

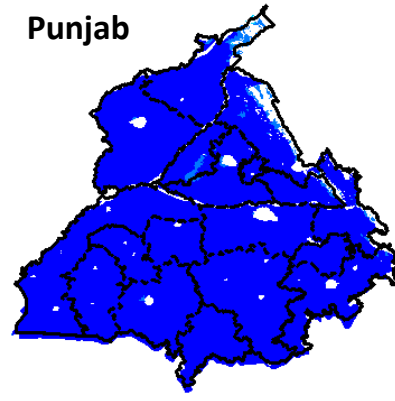


Agriculture vigour is good; NDVI values (> 0.6) entire state of Haryana.



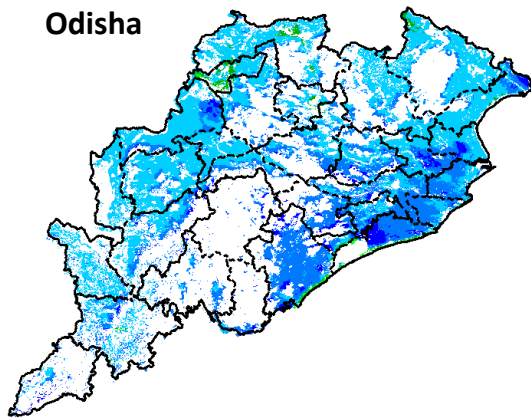
Madhya Pradesh

Agricultural vigour is good over central, western and northern region of Madhya Pradesh showing higher values of NDVI varies from 0.5 - 0.6. The overall Vegetation vigour is good over the entire state of Madhya Pradesh.



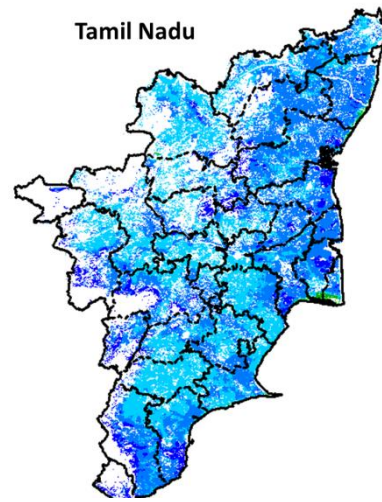
Punjab

Agricultural vigour is comparatively good over entire state of Punjab with NDVI values greater than 0.6.



Odisha

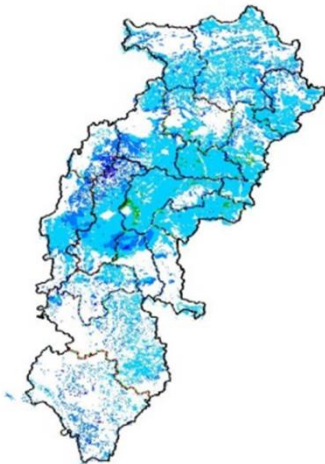
Agricultural vigour is good for entire Odisha with NDVI values of 0.4 - 0.5.



Tamil Nadu

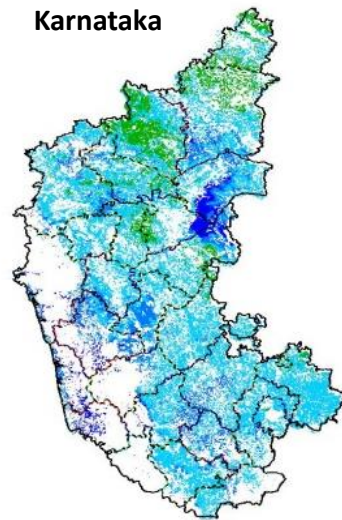
Agricultural vigour is good over Tamil Nadu with NDVI values varying from 0.4 - 0.6 in the coastal and Northern regions.

Chhattisgarh



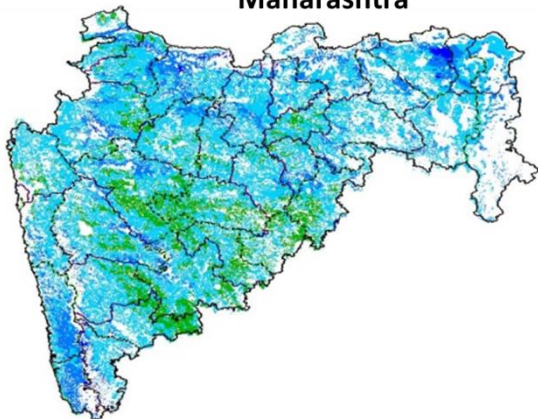
Agriculture vigour is good all over western and southern part of Chhattisgarh where NDVI values lies in between 0.4-0.5. NDVI values are normal over eastern, central and northern part of the state.

Karnataka



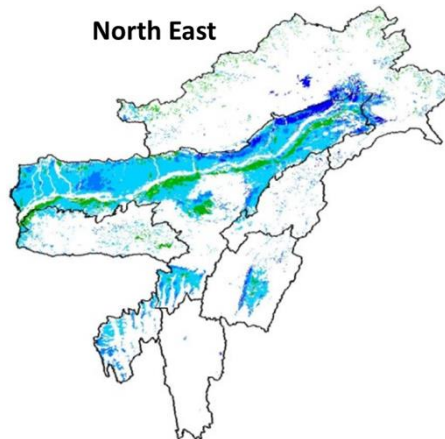
Agriculture vigour is good over some pockets in eastern and western coastal parts of Karnataka which lies in between 0.3-0.5. Rest of the part show normal condition where NDVI values vary up to 0.2-0.3

Maharashtra



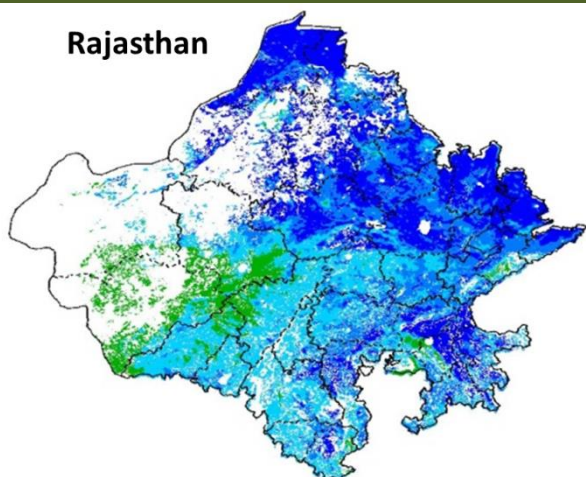
Agricultural vigour is good over Western coastal, Vidarbha and northern Marathwada region of Maharashtra with NDVI values of 0.4 - 0.5. Whereas, NDVI is moderate over central and southern parts of Marathwada region.

North East



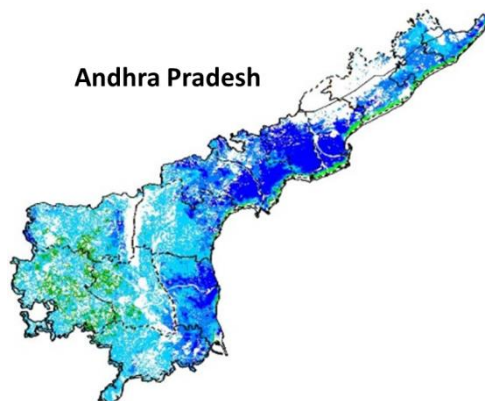
Agriculture vigour is good in valleys of northern hilly range of North-East states which covers part of Assam. NDVI values vary from 0.2-0.4 in this region. In north-east part of Assam, NDVI values are more than 0.6. Isolated patches of normal NDVI conditions are observed all over NE region.

Rajasthan




In the eastern, north eastern and north western part of Rajasthan NDVI shows higher values from 0.5-0.6. Whereas, Agricultural vigour is good (0.4-0.5) over southern part. Few patches in central Rajasthan show NDVI values varying from 0.2 - 0.3.

Andhra Pradesh




Agriculture vigour is very good (0.5 - 0.6) over central and coastal parts of Andhra Pradesh. The NDVI is good over rest of the part of the state.


Persistent cloud /

 **< 0.2** bare soil / wet background

 **0.2 - 0.3**

 **0.3 - 0.4**

 **0.4 - 0.5**

 **0.5 - 0.6**

 **> 0.6**

Weather Forecast

- Rain/snow would occur at most places with isolated heavy to very heavy falls over Western Himalayan region and rain/thunderstorm would occur at many places over adjoining plains of northwest India on 9th. it would decrease significantly thereafter.
- Rain/thundershower would occur at a few places over central India & adjoining Maharashtra on 9th and decrease thereafter.
- Minimum and minimum temperatures would rise by 2-3°C over northwest and central India during next 48 hours.

5-Day Rainfall Forecast (MID-DAY) DATED: 05-03-2015

S.N	MET. SUB-DIVISION	Forecast				
		05-03-15	06-03-15	07-03-15	08-03-15	09-03-15
1	A & N Islands	DRY	DRY	DRY	ISOL	SCT
2	Arunachal Pradesh	SCT	ISOL	DRY	DRY	DRY
3	Assam & Meghalaya	ISOL	ISOL	DRY	DRY	DRY
4	Nag, Mani, Mizo & Tripura	ISOL	DRY	DRY	DRY	DRY
5	SHWB & 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	ISOL
10	East Uttar Pradesh	DRY	DRY	DRY	ISOL	SCT
11	West Uttar Pradesh	DRY	DRY	DRY	SCT	FWS
12	Uttarakhand	ISOL	DRY	ISOL	SCT	FWS
13	Haryana, Chd & Delhi	DRY	DRY	DRY	FWS	FWS
14	Punjab	ISOL	DRY	ISOL	FWS	FWS
15	Himachal Pradesh	SCT	ISOL	ISOL	FWS	WS
16	Jammu & Kashmir	FWS	ISOL	SCT	WS	WS
17	West Rajasthan	ISOL	DRY	DRY	SCT	ISOL
18	East Rajasthan	DRY	DRY	DRY	SCT	SCT
19	West Madhya Pradesh	DRY	DRY	DRY	SCT	SCT
20	East Madhya Pradesh	DRY	DRY	DRY	SCT	FWS
21	Gujarat Region	DRY	DRY	DRY	ISOL	DRY
22	Saurashtra, Kutch & Diu	DRY	DRY	ISOL	ISOL	DRY
23	Konkan & Goa	DRY	DRY	DRY	ISOL	ISOL
24	Madhya Maharashtra	DRY	DRY	ISOL	SCT	ISOL
25	Marathwada	DRY	DRY	ISOL	SCT	SCT
26	Vidarbha	DRY	DRY	DRY	SCT	SCT
27	Chhattisgarh	DRY	DRY	DRY	ISOL	SCT
28	Coastal Andhra Pradesh	ISOL	ISOL	ISOL	DRY	DRY
29	Telangana	DRY	ISOL	ISOL	ISOL	ISOL
30	Rayalaseema	ISOL	ISOL	ISOL	DRY	DRY
31	Tamilnadu & Pudd.	SCT	ISOL	ISOL	ISOL	ISOL
32	Coastal Karnataka	DRY	ISOL	SCT	SCT	ISOL
33	N I Karnataka	DRY	ISOL	ISOL	SCT	ISOL
34	S I Karnataka	ISOL	SCT	SCT	ISOL	DRY
35	Kerala	SCT	SCT	SCT	SCT	ISOL
36	Lakshadweep	SCT	SCT	SCT	SCT	ISOL

% of stations reporting rainfall			
% Stations	Category	% Stations	Category
76-100	Widespread/Most Places (WS)	26-50	Scattered/ few places (SCT)
51-75	Fairly Widespread/Many Places (FWS)	1-25	Isolated (ISOL)
No Rain	Dry		

Weather Warning during next 5 days

- **05 March (Day 1):** No Weather Warning.
- **06 March (Day 2):** No Weather Warning.
- **07 March (Day 3):** No Weather Warning.
- **08 March (Day 4):** Heavy rain/snow would occur at isolated places over Jammu & Kashmir, ♦ Himachal Pradesh and Uttarakhand.
Thunderstorm accompanied with hailstorm would occur at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathwada and North Interior Karnataka.
- **09 March (Day 5):** Heavy rain/snow would occur at a few places over Jammu & Kashmir and Himachal Pradesh with very heavy falls at isolated places over Jammu & Kashmir. Heavy rain/snow would occur at

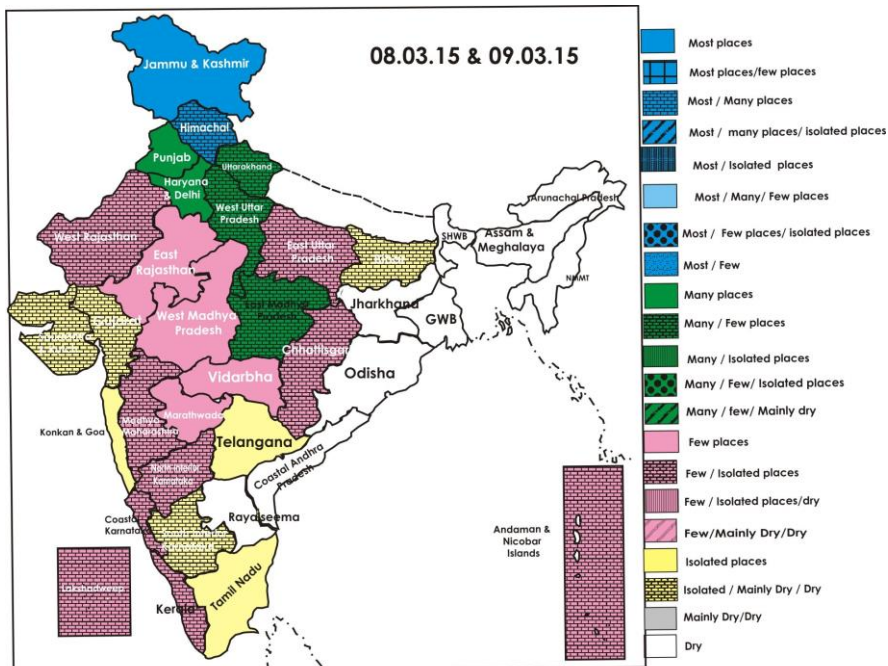
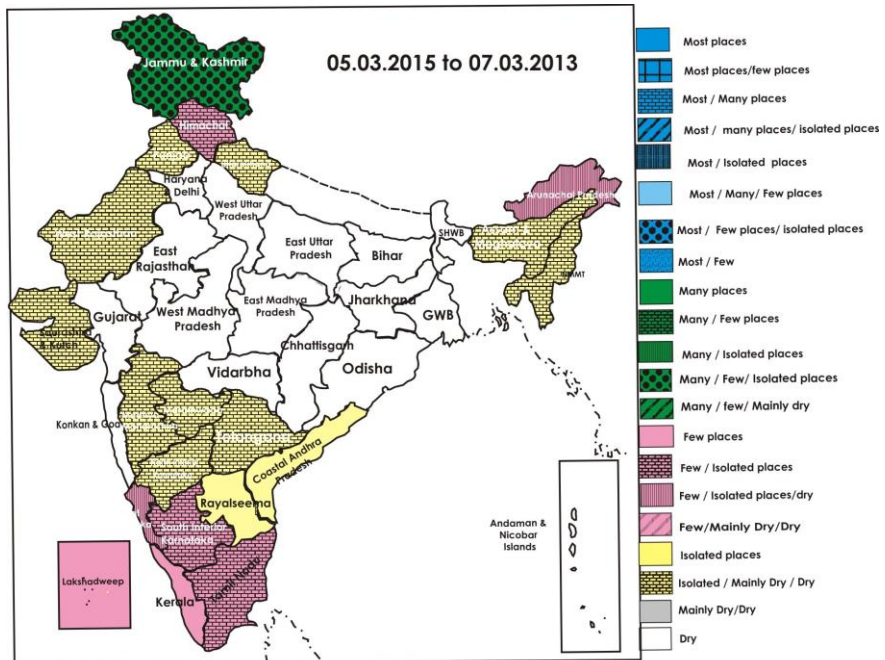
isolated places over Uttarakhand.

Thunderstorm accompanied with hailstorm would occur at isolated places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha and Marathwada.

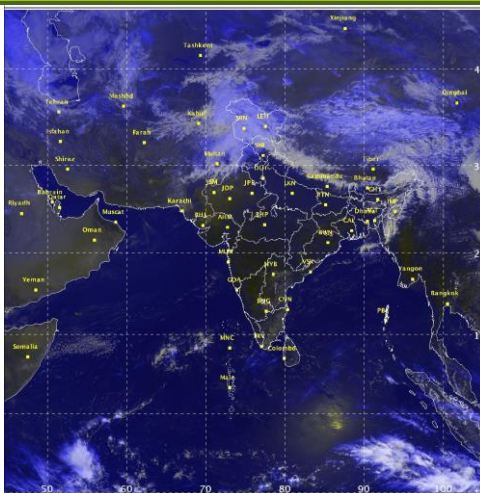
Weather Outlook for subsequent 2 days from 10th March 2015 to 12th March 2015

- Rain/snow would occur at isolated places over Western Himalayan region
- Rain/thundershower would occur at isolated places over central India & adjoining Maharashtra and northeastern states.

Weather Forecast Map (Valid upto 0830 hours of 10th March, 2015)



Satellite image dated, 05.03.2015, 0600 UTC



Salient Advisories

- As rain/snow would occur at many/most places over **Jammu & Kashmir** on **5th, 8th & 9th March**, over **Himachal Pradesh** on **8th & 9th March** and over **Uttarakhand** on **9th March** along with heavy rain/snow fall at isolated /at a few places on **8th & 9th March**, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep already harvested crops at safe places. Provide adequate drainage in standing crops to avoid water stagnation.
- As thunderstorm accompanied with hailstorm would occur at isolated places over **Punjab, Haryana, Chandigarh & Delhi, Himachal Pradesh, Uttarakhand, Rajasthan, Madhya Pradesh, Vidarbha and Marathwada** on **8th and 9th March** and over **West Uttar Pradesh and Madhya Maharashtra** on **8th** and over the State of **Uttar Pradesh** on **9th March**, it is advised to use hail nets for orchard crops to protect from mechanical damage. Also provide mechanical support to young fruit plants and vegetables to prevent the crops from lodging due to strong winds.
- Due to unseasonal rain accompanied by high wind during last few days, crop damage is reported in **Punjab, Haryana, East Uttar Pradesh, East Madhya Pradesh, Bihar and Maharashtra**. Lodging of wheat and mustard crop and water logging in standing crops are reported.
 - Drain out excess water from pulses and oil seeds crop fields in **South Bihar Alluvial Zone**.
 - Drain out excess water from the wheat and barley fields in **East Madhya Pradesh**. Undertake harvesting of matured mustard at the earliest.
 - Drain out the excess water from the wheat field and vegetable nurseries and other standing crops in Punjab and from wheat, barley, mustard and linseed in Central Plain zone of **Uttar Pradesh**. Undertake harvesting of matured mustard at the earliest.
- Due to sudden drop in minimum temperature in **Madhya Maharashtra**, there may be fruit cracking in grapes, remove the affected fruits and destroy to avoid spread of diseases.
- Prevailing cloudy weather is congenial for infestation of *anthracnose* on inflorescence and developing mango in south **Konkan**, spray Carbendazim @ 1 g + Mancozeb @ 0.5 g per litre of water on whole tree.

Detailed Zonewise Agromet Advisories

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



Sorghum

Sugarcane

Chilli

Rice Transplanting

- **Realised Rainfall:** Rainfall occurred over Belagavi and Bidar districts in North Interior Karnataka; Bengaluru Rural & Urban, Chikballapura and Kolar districts in South Interior Karnataka; Kanyakumari and Tirunelveli district in Tamil Nadu; Alapuzha, Idukki, Kollam, Kottayam and Pathanamthitta districts in Kerala; Nellore district in Coastal Andhra Pradesh; Chittoor and Kurnool district in Rayalaseema and Adilabad and Nizamabad districts in Telangana. Weather remained mainly dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Kerala during next 4 days and at isolated places thereafter. Rain/thundershowers would occur at a few places over Tamil Nadu & Puducherry during next 2 days and at isolated places thereafter. Rain/thundershowers would occur at a few places over South Interior Karnataka on 6th and 7th March and at isolated/ dry during rest of the period. Rain/thundershowers would occur at isolated places over Andhra Pradesh during next 3 days and dry weather would prevail thereafter. Dry weather would prevail over Telangana during next 24 hours and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over Coastal Karnataka during next 24 hours and rain/thundershowers would occur at isolated places on 6th and 9th and at a few places on 7th and 8th March. Dry weather would prevail over North Interior Karnataka during next 24 hours and rain/thundershowers would occur at isolated places on 6th, 7th and 9th March and at a few places on 8th March.
- **Weather Warning:** Thunderstorm accompanied with hailstorm would occur at isolated places over North Interior Karnataka on 8th March.
- **Advisories:**
 - **Andhra Pradesh:**
 - Prevailing weather conditions (increase in day temperature) are congenial for incidences of downy mildew disease and mango hoppers in mango in the Scarce Rainfall Zone. To control downy mildew disease, spray Wettable Sulphur @ 3g/litre of water and Kerathene 1ml/litre of water if the disease is severe and to control mango hoppers, spray Carbaryl 3g/litre of water is at early stage of flowering and Monochrotophos 1.6-2ml/litre of water at the time of flowering.
 - Due to rise in temperature and humidity, there is possibility of incidence of early shoot borer in 40-45 days sugarcane crop and sheath rot in rice. To control early shoot borer spray Carbendizum @ 1g/litre of water and spray Chloripyriphos @ 2.5 ml/litre of water to control sheath rot.
 - **Telangana:**
 - Undertake sowing of tomatoes in the Northern Telangana Zone.
 - Incidences of leaf hoppers, aphids and thrips damage is observed in groundnut in the Northern Telangana Zone due to prevailing temperature. Spray Monocrotophos @ 1.6 ml or Dimethoate 2.0 ml or Imidacloprid 0.4 ml/litre of water to manage the incidence. High incidence of shoot and fruit borer is observed in brinjal. Undertake plant protection measures.
 - Postpone harvesting of maize crop due to forecast of light rains at isolated places during next five days in the Southern Telangana Zone.
 - Prevailing weather conditions are congenial for the incidence of tikka leaf spot in groundnut in the Southern Telangana Zone. To control, spray Mancozeb @ 2.0g + Carbendazim @ 1.0g or Chlorothalonil @ 2.0 g or Hexaconazole @ 1.0 ml per litre of water.
 - **Karnataka:**
 - In view of likely occurrence of thunderstorm accompanied with hailstorm at isolated places over North Interior Karnataka on 8th March and likely dry weather during next 3 days, undertake harvesting of *rabi* sorghum, safflower and wheat immediately and take the harvested products to the safe places.
 - Continue sowing of cowpea and green gram and transplanting of bottle gourd and ridge under irrigated condition, complete harvesting of chickpea, wheat, sorghum at the earliest and in the North Dry Zone and North East Dry Zone.
 - Continue harvesting of chickpea, chilli, wheat and sorghum at the earliest and continue planting of sugarcane in

the North Transition Zone.

- Temperature ranging from 27-33°C followed by cloudy weather is congenial for incidence of case worm in rice in the Coastal Zone. Drop granules of Carbofuran 3G @ 20 kg/ha, in whorls for control.
- Due to increase of temperature, aphids in cow pea, powdery mildew in mango and increase in sucking pest in water melon were noticed in North East Dry Zone. Spray Dimethoate @ 2 ml/ litre of water to manage aphids, Difenconazole @ 1 ml/litre of water to manage powdery mildew and Imidacloprid @ 0.5 ml/litre of water to manage sucking pests.

▪ **Kerala:**

- As evaporation rates are high, irrigate rice fields at least once in 4 days in the High Altitude Zone. Use “Trichogramma” cards for reducing rice stem borer infestation. Apply 2.5 kg pseudomonas mixed with 50 kg cowdung for one hectare and avoid excess usage of nitrogen fertilizers to control blast and sheath rot diseases. Undertake land preparation for planting of pepper and cultivation of ginger.
- Undertake cultivation of vegetables as intercrops in coconut gardens. Take necessary measures to combat drought and undertake cover cropping in irrigated areas or mulch the soils to prevent evaporation loss of water in the Northern Zone.
- Irrigate banana plants twice in a week, since scarcity of water will lead to the formation of weak bunches and irrigate coconut palms due to dry weather in the Southern Zone.
- Dry weather may accelerate the attack of insect vectors which spread virus diseases in vegetables. Apply Rogor (Dimethoate) 1.5 ml / litre of water to control vectors. Neem oil emulsion @ 25 ml/ litre of water can be sprayed in cow pea as a prophylactic measure against virus diseases in the Southern Zone. Spray Pseudomonas 10- 15 g / litre water to control blast disease in rice field.

▪ **Tamil Nadu:**

- Complete harvesting of matured *samba and thaladi* rice in the Cauvery Delta Zone. Continue sowing of sesame.
- Since rainfall during summer months is accompanied with squally wind undertake propping to banana crop to avoid lodging in the Western Zone.
- Prevailing cloudy weather is congenial for incidence of little leaf disease in brinjal at vegetative to flowering stage in the Southern Zone. Remove and destroy infected plants for controlling the disease and spray Malathion @ 2 ml / litre of water.
- Moderate humidity and light rain is congenial for the incidence of wilt disease in tomato at vegetative to flowering stage and fruit rot disease in chilli at fruiting stage in the South Zone. Mix and apply 2.5 kg of Trichoderma Viride @ 1% WP in 150 kg of compost or Farm Yard Manure to manage wilt disease and spray Captan @ 75% WP @ 800g in 400 litres of water/ acre (or) Copper Oxychloride @ 50% WP @ 1000 g in 300-400 litres of water/ acre to manage fruit rot disease.
- Due to light rainfall, there is chance of late blight in potato in the High Altitude Hill Zone, spray systemic and contact fungicides once in 7 days interval to control late blight in potato.
- Suitable varieties for sowing are given in Annexure II.

• **Animal Husbandry**

- Anthrax disease is noticed in some parts of the Northern Telangana Zone and Scarce Rainfall Zone of Andhra Pradesh. Vaccinate animals at the earliest.
- Take care of animals during rainy periods to protect them from thunder storm with lightning accompanied with rainfall in the Western Zone of Tamil Nadu.

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



Rice transplanting



Mustard



Potato



Cabbage

- **Realised Rainfall:** Rainfall occurred in Dibang Valley, East Siang, Lohit, Lower Dibang Valley, Tawang, Upper Siang and West Siang districts of Arunachal Pradesh; Chirang, Dhemaji, N.C. Hills and Tinsukia districts of Assam; West Garo Hills district of Meghalaya. Mainly dry weather prevailed over rest part of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Arunachal Pradesh during the next 24 hours; at isolated places on 6th, and dry weather would prevail thereafter. Rain/thundershowers would occur at

isolated places over Assam & Meghalaya during the next 48 hours and over Nagaland, Manipur, Mizoram and Tripura during the next 24 hours and dry weather would prevail thereafter.

- **Weather Warning:** Nil
- **Weather Outlook:** Rain/thundershower would occur at isolated places over northeastern states.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Assam, maintain 5cm of standing water in the field of *boro* rice.
 - In Assam & Meghalaya, normal sowing of summer crops and other agricultural operations are carried out under normal weather conditions.
 - In Meghalaya, undertake harvesting of mature potato, mustard/ rapeseed, cauliflower, cabbage and broccoli on bright sunny days.
 - In North Bank Plain Zone of Assam, soil and air temperatures are becoming favourable for the attack of stem borer in *boro* rice. Apply ‘Darsban’ or ‘Monocrotophos’ @ 2 tea spoonful per 5 litres of water in the field.
 - In Hill Zone of Assam, due to humid and cloudy weather, there is chance of blast disease in *boro* rice, spray Mancozeb 0.2% @ 2g/litre or Ediphenphos 0.1% @ 1g/litre of water for control of the disease.
 - In Central Brahmaputra Valley Zone of Assam, due to cloudy weather, there is chance of occurrence of aphids in wheat. Apply Dimethoate (Rogor) @ 2 ml/litre of water to control aphids in affected wheat fields.
 - In Meghalaya, due to humid weather, there is chance of attack of blast /brown spot disease in *boro* rice. Spray Carbendazim @ 1g/litre of water against blast/brown spot.
 - **Manipur, Mizoram, Nagaland and Tripura:**
 - In Nagaland, Manipur, Mizoram and Tripura, normal sowing of summer crops and other agricultural operations are carried out under normal weather conditions.
 - In Tripura, present dry spell may create moisture stress in the field of *boro* rice at maximum tillering stage. Maintain 4 to 5 cm standing water in the plot. Also maintain optimum moisture in the field of *rabi* maize through irrigation. Mulching is essential to hold the moisture in the field.
 - In Tripura, due to cloudy weather, there is chance of attack of yellow stem borer in *boro* rice, apply Fipronil @ 2 g per litre of water to manage the attack.
 - In Manipur, due to cloudy weather, there is chance of attack of stem borer in maize, apply Carbofuran 3G at maize whorl.
 - Suitable varieties for sowing are given in Annexure II.
- **Animal Husbandry**
 - In Tripura, increasing temperature with increasing humidity may cause discomfort to the cattle. Farmers are advised to take proper precautions.

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



Sugarcane



Wheat



Rice transplanting



Onion

- **Realised Rainfall:** Rainfall occurred in East Champaran and Gopalganj districts of Bihar; East Sikkim and North Sikkim districts of Sikkim. Mainly dry weather prevailed over rest parts of the region.
- **Weather Forecast:** Dry weather would prevail over Andaman & Nicobar Islands during next 3 days and rain/thundershowers would occur at isolated places on 8th and at a few places on 9th March. Dry weather would prevail over Bihar during next 4days; over and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over rest parts of the region during the period.
- **Weather Warning:** Nil.
- **Advisories:**
 - **West Bengal:**
 - In Sub-Himalayan West Bengal & Sikkim and Gangetic West Bengal, undertake normal sowing of summer crops and other agricultural operations under normal weather conditions.
 - As mainly dry weather would prevail, continue harvesting of lentil in Old Alluvial Zone and in Hill Zone, continue harvesting of matured wheat.

- In New Alluvial Zone of West Bengal, maintain 2-3cm standing water in rice at tillering stage.
- In the prevailing humid weather condition, there is chance of incidence of blast in rice during tillering stage and tikka leaf spot in groundnut during vegetative stage in Laterite and Red Soil Zone of West Bengal. Apply Carbendazim @ 1g/litre of water and repeat at an interval of 10-15 days to control blast and Carbendazim 0.05% with an interval of 7-10 days to control tikka leaf spot.
- In Hill Zone, due to cloudy weather condition, there are chances of attack of aphids in French beans, butter beans and broad beans during its pod filling stage. To control aphids, spray Dimethoate @ 1.5ml/litre of water or Monocrotophos @ 2 ml/litre of water.
- **Andaman and Nicobar Islands:**
- In North, Middle and South Andaman, cloudy weather is congenial for incidence of white fly in vegetables, spray neem seed kernel extract @ 5% on a non rainy day and remove the infected plants and burn it.
- **Odisha:**
- In East and South Eastern Coastal Plain Zone of Odisha, complete sowing of maize by this week as late sowing of maize afterwards may reduce the yield due to high temperature during April and May.
- In Western Undulating Zone of Odisha and Mid Central Table Land Zone of Odisha, due to rise in temperature coupled with humidity, attack of stem borer has been aggravated in rice. To control, spray Triazophos @ 2 ml/litre of water.
- In East and South Eastern Coastal Plain Zone and North Central Plateau Zone, high day and night temperature difference and humid weather may aggravate the infestation of blast in rice. Undertake spraying of Beam @ 1 g per litre water.
- In East and South Eastern Coastal Plain Zone of Odisha, high differential temperature between day and night favours the infestation of Blast in summer rice. Spray Tricyclazole @ 0.6 g or Ediphosphos @ 1 ml. in litre of water. Withhold top dressing of Urea for five days after the spraying.
- In East and South Eastern Coastal Plain Zone of Odisha, increased temperature may favour the egg laying of stem borer in rice in the main field. To attract the borer butterflies, place 4 Pheromon Traps/acre, collect the adults and destroy them by burying them under soil or by burning. Spray 2 ml Prophenophos per litre water.
- In Mid Central Table Land Zone of Odisha, due to increase in relative humidity coupled with rise in temperature, the attack stem borer has been aggravated in *rabi* rice. To control it, go for alternate spray of Fipronil @ 2 ml / l with Indoxacarb@1.5 ml/litre at 15days interval.
- In North Eastern Coastal Plain Zone of Odisha, due to fluctuation in maximum and minimum temperature, white fly problem may aggravate in green gram. Use 10-15 nos. of yellow sticky traps in the crop field to monitor and control the population of white fly. In case of appearance of YMV disease, destroy the plant and spray Imidacloprid@5ml in 10 litres of water.
- **Bihar:**
- Crop damage in pulses and oil seeds are reported due to water logging in South Bihar Alluvial Zone, drain out excess water from the crop fields.
- In South Bihar Alluvial Zone, as dry weather would prevail, continue harvesting of mustard and complete harvesting of potato after attaining optimum moisture level. Continue planting of sweet potato and complete sowing of summer vegetables utilising the realised rainfall.
- In North West Alluvial Plain Zone of Bihar, continue sowing of summer vegetables and okra utilizing realised rainfall. Continue land preparation for sowing of green gram/ black gram and maize.
- In North East Alluvial Zone of Bihar, as dry weather would prevail, complete harvesting of potato.
- **Jharkhand:**
- In Western Plateau Zone, as mainly dry weather is prevailing, continue harvesting of Potato.
- In South Eastern Plateau Zone of Jharkhand, as dry weather is prevailing apply irrigation to wheat.
- In Central & North Eastern Plateau Zone of Jharkhand, as dry weather is prevailing, apply irrigation to wheat which is at heading to milk stage.
- In Central & North Eastern Plateau Zone of Jharkhand, due to high humidity and fluctuation in temperature, there is chance of powdery mildew disease in mango/litchi, spray Kara then @ 1 ml or Sulfex @ 2 g per litre of water.
- Suitable varieties for sowing are given in Annexure II.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Wheat



Mustard



Onion

- **Realised Rainfall:** Rainfall occurred in all districts of East Madhya Pradesh except Sagar; Betul, Bhind, Burhanpur, Harda, Hoshangabad, Khandwa, Mandasaur and Shivpuri districts of West Madhya Pradesh; Bijapur, Bilaspur and Durg districts of Chhattisgarh. Mainly dry weather prevailed over rest of the region.
- **Weather Forecast:** Dry weather would prevail over West Madhya Pradesh during next 3 days and rain/thundershowers would occur at a few places thereafter. Dry weather would prevail over East Madhya Pradesh during next 3 days and rain/thundershowers would occur at a few places on 8th and at many places thereafter. Dry weather would prevail over Chhattisgarh during next 3 days and rain/thundershowers would occur at isolated places on 8th and at a few places thereafter. Rain/thundershower would occur at a few places over central India on 9th and decrease thereafter. Maximum temperatures and Minimum temperatures would rise by 2-3°C over central India during next 48 hours.
- **Weather Warning:** Thunderstorm accompanied with hailstorm would occur at isolated places over Madhya Pradesh on 8th and 9th March.
- **Weather Outlook:** Rain/thundershower would occur at isolated places over central India.
- **Advisories:**
 - **Madhya Pradesh:**
 - As thunderstorm accompanied with hailstorm would occur at isolated places over Madhya Pradesh on 8th and 9th March, farmers are advised to use hail nets for orchard crops to protect from mechanical damage. Also undertake propping in sugarcane and provide mechanical support to vegetables to prevent the crops from lodging due to strong winds. Also in East Madhya Pradesh, as rain would occur at many places on 9th, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
 - In East Madhya Pradesh, due to heavy rain during last few days, there was water logging in wheat and barley fields, drain out excess water from the crop fields. Undertake harvesting of matured mustard at the earliest.
 - In Satpura Plateau Zone, as dry weather would prevail, undertake harvesting of matured gram, and potato and sowing of cucurbitaceous crops, okra, green gram, black gram and cowpea utilising the realised rainfall.
 - In Malwa Plateau Zone and Bundelkhand Zone, continue sowing/transplanting of summer vegetables and apply urea in late sown wheat utilising the realised rainfall.
 - Due to the rain during last few days, there are chances of incidence of powdery mildew in mango and vegetables in Kymore Plateau and Satpura Hill Zone, spray Carbendazim @ 10 g/10 litres water on a non rainy day.
 - Due to cloudy weather there are chances of attack of gram pod borer in Jhabua Hill zone and Vindya Plateau Zone, spray Profenofos + Cyper Methrin @ 1.0 to 1.250 litre/ha with 500-600 litre of water on a non rainy day.
 - **Chhattisgarh:**
 - As dry weather would prevail, continue harvesting of matured mustard and potato in North Hill Zone.
 - Due to cloudy weather, there are chances of infestation of aphids in leafy vegetables and shoot and fruit borer in brinjal and okra in Plain Zone of Chhattisgarh, spray Methyl Dematon or Dimethoate @ 1.5 ml/litre of water for control of aphids and for control of shoot and fruit borer, apply Carbaryl WP @ 1 kg/ha or Indoxacarb @ 500 ml/ha for the control of shoot and fruit borer.
- **Animal Husbandry**
 - Provide concentrate feed to cattle mixed with dry and green fodder and enrich the diet with protein, carbohydrate, fat, vitamins etc. in Madhya Pradesh.

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



Wheat



Sugarcane



Mustard



Cabbage

- **Realised Rainfall:** Rainfall occurred in all districts of Jammu & Kashmir except Ladakh (Leh); all districts of Himachal Pradesh and Uttarakhand; in Delhi except Northeast Delhi, all districts of Haryana except Bhiwani and Mahendragarh; Azamgarh, Banda, Barabanki, Gorakhpur, Hardoi, Kanpur City, Kanpur Dehat, Kaushambi, Lakhimpur kheri, Lucknow, Pratapgarh, Shahuji Maharaj Nagar, Sant Ravidas Nagar, Sitapur and Unnao districts of East Uttar Pradesh; Agra, Aligarh, Auraiya Badaun, Baghpat, Bareilly, Bijnor, Bulandshahar, Etah, Gautam buddha nagar, Ghaziabad, Jalaun, Jyotiba Phule Nagar ,Mahamaya Naga , Mainpuri, Meerut, Moradabad, Muzaffarnagar, Pilibhit, Rampur, Saharanpur, Shahjahanpur of West Uttar Pradesh; all districts of Punjab except Barnala, Faridkot, Ferozpur and Mansa. Alwar, Bharatpur, Bundi, Chittorgarh, Dausa, Dholpur, Jaipur, Jhunjhunu, Karuli, Kota, Sawai Madhopur and Tonk Districts of East Rajasthan; Bikaner, Churu, Hanumanghar, Nagaur and Sri Ganganagar districts of West Madhya Pradesh. Mainly dry/dry weather prevailed over rest of the region.

- **Weather Forecast:** Rain/snow would occur at most places over Jammu & Kashmir on 8th and 9th, at many places on 5th; at a few places on 7th and at isolated places on 6th March. Rain/snow would occur at most places over Himachal Pradesh on 9th, at many places on 8th March; at a few places on 5th and at isolated places on 6th and 7th March. Rain/snow would occur at many places over Uttarakhand on 9th, at a few places on 8th, at isolated places on 5th and 7th and dry weather would prevail on 6th March. Rain/thundershowers would occur at many places over Punjab on 8th and 9th, at isolated places on 5th and 7th and dry weather would prevail on 6th March. Rain/thundershowers would occur at many places over Haryana & Delhi on 8th and 9th and dry weather would prevail on 5th, 6th and 7th March. Rain/thundershowers would occur at a few places over West Rajasthan on 8th, at isolated places on 5th and 9th and dry weather would prevail on 6th and 7th March. Rain/thundershowers would occur at a few places over East Rajasthan on 8th and 9th, dry weather would prevail on 5th, 6th and 7th March. Rain/thundershowers would occur at a few places over West Uttar Pradesh on 8th; at many places on 9th, dry weather would prevail on 5th, 6th and 7th March. Rain/thundershowers would occur at isolated places over East Uttar Pradesh on 8th; at a few places on 9th and dry weather would prevail on 5th, 6th and 7th March.

Rain/snow would occur at most places with isolated heavy to very heavy falls over Western Himalayan region and rain/thunderstorm would occur at many places over adjoining plains of northwest India on 9th. It would decrease significantly thereafter.

Minimum and minimum temperatures would rise by 2-3° C over northwest India during next 48 hours.

- **Weather Warning:** Heavy rain/snow would occur at isolated places over Jammu & Kashmir, Himachal Pradesh on 8th March and Uttarakhand on 8th and 9th March. Heavy rain/snow would occur at a few places over Jammu & Kashmir and Himachal Pradesh with very heavy falls at isolated places over Jammu & Kashmir on 9th March.
- Thunderstorm accompanied with hailstorm would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi, Himachal Pradesh, Uttarakhand, Rajasthan on 8th and 9th March and over West Uttar Pradesh on 8th and over the State of Uttar Pradesh on 9th March.
- **Weather Outlook:** Rain/snow would occur at isolated places over Western Himalayan region.

• **Advisories:**

- As rain/snow would occur at many/most places over Jammu & Kashmir on 5th, 8th & 9th March, over Himachal Pradesh on 8th & 9th March and over Uttarakhand on 9th March along with heavy rain/snow fall at isolated /at a few places on 8th & 9th March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep already harvested crops at safe places. Provide adequate drainage in standing crops to avoid water stagnation.
- As thunderstorm accompanied with hailstorm would occur at isolated places over Punjab, Haryana, Chandigarh & Delhi, Himachal Pradesh, Uttarakhand, Rajasthan on 8th and 9th March and over West Uttar Pradesh on 8th and over the State of Uttar Pradesh on 9th March, it is advised to use hail nets for orchard crops to protect from mechanical damage. Also provide mechanical support to young fruit plants and vegetables to prevent the crops from lodging due to strong winds.
- **Jammu & Kashmir:**
- In Sub Tropical and Intermediate Zone of Jammu & Kashmir, drain out excess water from wheat, pulses and

vegetable fields.

- Continue harvesting of Chinese cabbage, palak, pakchoi and lettuce and continue direct seed sowing of turnip, coriander and radish in Green Houses in Cold Arid Zone of Jammu & Kashmir.

▪ **Uttarakhand:**

- As rain / snow would occur at many places over Uttarakhand on 9th March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops.
- In Bhabar and Tarai Zone of Uttarakhand, continue sowing of pulses, rajmash, lentil, okra, planting of sugarcane and transplanting of onion utilising the realised and expected rainfall.
- In Hill Zone of Uttarakhand, continue land preparation for planting of potato, continue nursery sowing of tomato, brinjal and capsicum utilising the realised and expected rainfall.
- Due to humid weather, there may be incidence of yellow rust on wheat in Sub humid sub tropic Zone of Uttarakhand; for control, spray Propiconazole 25 EC (Tilt 25 EC) @ 0.1% after current spells of rain.
- Due to humid and cloudy weather, there is chance of mealy bug infestation in mango plant in Sub humid sub tropic Zone of Uttarakhand. To control the insect, dust Methyl Parathion 2% @ 250 g per tree in the soil around the trunk after current spells of rain.

▪ **Rajasthan:**

- In Southern Humid Plain Zone, Aravali Hill Zone of Rajasthan, as no significant rainfall is expected, apply remaining dose of nitrogen to *rabi* maize through urea with irrigation at tasselling stage and apply irrigation in wheat at ear emergence and milk stage. Continue normal sowing of summer crops (viz. groundnut, moong and maize) and other agricultural operations under normal weather conditions.
- In Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan, prevailing weather condition is congenial for attack of termites in wheat and barley, to control spray of solution of Chloropyriphos 20EC @ 2 litres/ha with irrigation water on a non rainy day.
- In Arid Western Zone of Rajasthan, partly cloudy weather conditions may promote the white rust disease in late sown mustard. To prevent the disease, spray the Ridiomil MZ @ 2 gm/litre of water on a non rainy day.

▪ **Himachal Pradesh:**

- Due to heavy rain during last 2-3 days, water logging was observed in spinach, onion and pea in Mid Hills Sub Humid Zone and in apple orchards in Mild Hill Sub Humid Zone. Drain out excess water from the crop fields.
- Due to humid weather condition, there is chance of powdery mildew in wheat in Sub-Montane and Low Hills Sub-Humid Tropical Zone. Spray Hexaconazole @ 1ml per litre of water after current spells of rain and repeat the spray after 15 days interval.
- Due to cloudy weather, there are chances of incidence of collar rot in apple in Mild Hills Sub Humid Zone. For control, spray Ridomil @ 75 g per 20 litres of water or Bavistin @ 15-20 g/20 litres of water or Dithane-M-45 @ 90-100 g/15 litres of water after current spells of rain.

▪ **Punjab, Haryana and Delhi:**

- Due to rain during past 2-3 days, water logging was observed in vegetable nurseries and other standing crops, drain out the excess water from the crop fields.
- In Haryana & Delhi, harvest matured mustard at the earliest.
- In Western Semi-Arid Zone of Delhi, continue sowing of ladies finger, cucurbitaceous crops and nursery sowing of vegetables like chilli, tomato and brinjal utilizing the realised rainfall.
- Remove the standing water from field followed by earthing up and staking of plants.
- In Western Zone of Punjab, prepare the field for transplanting of summer vegetables viz. chilli, tomato and bell pepper, undertake sowing of cucumber, bottle gourd, pumpkin, muskmelon, watermelon, bitter gourd utilizing the realised rainfall.
- In Western Zone of Haryana, continue transplanting of young seedlings of tomato and chilli utilizing the realised rainfall. Undertake sowing of green gram and black gram.
- Prevailing humid weather is conducive for severe attack of aphids in mustard in Western Plain Zone of Punjab; monitor the crop regularly and spray Actara 25 WG @ 40g /acre after current spells of rain.
- Cloudy weather condition is favourable for yellow rust in wheat crop in Central Plain Zone, Undulating Plain Zone of Punjab and Western Semi-Arid Zone of Delhi. To control spray the crop with tilt 25 EC/Shine 25 EC/Bumper 25 EC or Folicur 25 EC @ 200 ml or Bayleton 25 WP @ 200 g in 200 litres of water/acre after current spells of rain.
- Due to variable weather in Western Zone of Haryana, there is possibilities of pod borer in the gram, spray 400 gram Carbaril 50 W.P. or 200 ml monocrotophas 36 S.L with 100 liter water per acre, after current spells of rain and attack of white rust in late sown crop, spray 600 gram mencozeb, Dithane M- 45 or Endofil M-45 mixed with 250 to 300 liter water/acre after current spells of rain.

▪ **Uttar Pradesh:**

- Due to rain in last 2-3 days, water lodging was observed in standing crops like wheat, barley, mustard and linseed in Central Plain zone. Drain out excess water from the crop fields. Undertake harvesting of matured mustard at the earliest.
- In Eastern Plain Zone and Bundelkhand Zone of Uttar Pradesh, undertake normal sowing of summer crops and other agricultural operations under normal weather conditions.
- Complete harvesting of matured mustard at the earliest and of sugarcane in Central Plain Zone. Undertake

- planting of papaya and harvesting of matured potato and peas.
- Under humid weather condition, there is chance of attack of pod borer in pigeon pea and pea. Spray Malathion 50% @ 2 litres/ha. For control of fruit borer in chickpea, spray Monocrotophos @ 1 ml/litre of water thrice at fortnightly interval.
- Under prevailing humid weather condition there is chance of late blight in potato in Northeastern Plain Zone. Spray Ridomil MZ @ 0.2 g + Copper oxichloride @ 0.1 g per litre of water. For control of top borer in maize, spray Imidachlorpid or Monocrotophos @ 1 ml/litre of water. For control of loose smut in wheat, spray Propiconazole @ 1 ml/litre of water.
- Under prevailing dry weather condition, there is chance of fruit borer in gram, lentil and peas in Western Plain Zone. Spray Monocrotophos @ 0.5 ml per litre of water.
- Suitable varieties for sowing are given in Annexure II.
- **Animal Husbandry**
- In Jammu & Kashmir and Himachal Pradesh, keep cattle/goats indoor to prevent them from cold weather condition.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Banana

Sugarcane

Sorghum

Mango

- **Realised Rainfall:** Rainfall occurred in all districts of Vidarbha and Goa, in Raigad, Ratnagiri, Sindhudurg and Thane districts of Konkan, Ahmednagar, Jalgaon, Kolhapur, Nasik, Pune, Sangli and Satara districts of Madhya Maharashtra, in Nanded district of Marathwada. Weather remained mainly dry over Gujarat State.
- **Weather Forecast:** Dry weather would prevail over the Madhya Maharashtra during next 2 days and rain/thundershowers would occur at isolated places on 7th and 9th and at a few places on 8th March. Dry weather would prevail over the Marathwada during next 2 days and rain/thundershowers would occur at isolated places on 7th and at a few places thereafter. Dry weather would prevail over Vidarbha during next 3 days and rain/thundershowers would occur at a few places thereafter. Dry weather would prevail over the Konkan during next 3 days and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over the Gujarat region during next 3 days and rain/thundershowers would occur at isolated places on 8th and dry thereafter. Dry weather would prevail over the Saurashtra & Kutch during next 2 days and rain/thundershowers would occur at isolated places 7th and 8th and dry thereafter.
Rain/thundershower would occur at a few places over Maharashtra adjoining to central India on 9th and decrease thereafter.
- **Weather Warning:** Thunderstorm accompanied with hailstorm would occur at isolated places over Vidarbha, Madhya Maharashtra and Marathwada on 8th and over Vidarbha and Marathwada on 9th March.
- **Weather Outlook:** Rain/thundershower would occur at isolated places over Maharashtra adjoining to central India.
- **Advisories:**
 - As thunderstorm accompanied with hailstorm would occur at isolated places over Madhya Maharashtra, Marathwada and Vidarbha on 8th and over Vidarbha and Marathwada on 9th March, farmers are advised to use hail nets for orchard crops to protect from mechanical damage. Also undertake propping in sugarcane and provide mechanical support to banana and vegetables to prevent the crops from lodging due to strong winds.
 - **Maharashtra:**
 - As there was significant rain during last 4-5 days and rain/thundershowers would occur at isolated places on 8th and 9th March, postpone irrigation to the mango, cashew and arecanut orchards and vegetable crops. Maintain water level upto 5 cm at early tillering stage of summer rice and finger millet. As rain is expected on 8th and 9th March, harvest matured summer okra and watermelon fruits and vegetables at the earliest. Considering the wind speed (14-19 kmph), provide mechanical support to newly planted mango, cashew and arecanut grafts.
 - In Madhya Maharashtra, most of the districts (except Dhule and Nandurbar) received significant rainfall and rain/thundershowers would occur at a few places on 8th March and thunderstorm accompanied with hailstorm would occur on 8th March, harvest the matured jowar, wheat and late sown gram before 7th March. Keep the harvested produce in safer place. As thunderstorm accompanied with isolated hailstorm is expected on 8th March, grape growers (Nasik, Sangli and Pune region) are advised to use hailnet to protect from mechanical damage. Matured grapes and banana fruits may be harvested at the earliest. Cover the new banana bunch with skating bags to protect from hail. Provide mechanical support to banana and vegetable crops. Due to sudden

drop in minimum temperature, there may be fruit cracking in grapes, remove the affected fruits and destroy to avoid spread of diseases. Apply fertilizers on a non rainy day.

- In Marathwada, all the districts received significant rain during last 4-5 days and rain/thundershowers would occur at a few places on 8th to 9th March and thunderstorm accompanied with hailstorm would occur at isolated places on 8th and 9th March, harvest the matured jowar, wheat and late sown gram and matured fruits and flowers before 7th March. Keep the harvested produce in safer place. As thunderstorm accompanied with isolated hailstorm is expected on 8th and 9th March, grape growers (Latur, Osmanabad and Aurangabad) are advised to use hailnet to protect from mechanical damage. Matured grapes and banana fruits may be harvested at the earliest. Cover the new banana bunch with skating bags to protect from hail. Provide mechanical support to banana and vegetables to prevent the crop from lodging due to squally wind. Apply fertilizers on a non rainy day.
- In Vidarbha, as there was significant rain in all the districts during last 4-5 days and rain would also occur a few places on 8th and 9th March and thunderstorm accompanied with hailstorm would occur at isolated places on 8th and 9th March, Postpone the irrigation to summer groundnut, moong and vegetables. Harvest the matured wheat and late sown gram and matured orange before 7th March. Keep the harvested produce in safer place. Due to rain and squally wind, there may be lodging in banana, provide mechanical support to banana plant. Due to untimely rain there was fruit dropping in orange, collect dropped fruits and infested leaves and branches and destroy. To avoid further spread of pest and disease clean the orchards. Maintain upto 5 cm water level in summer rice field (early tillering) in east Vidarbha. Apply fertilizers on a non rainy day.
- Due to cold and expected rain in Marathwada region, there may be incidence sigatoka in banana, spray copper-oxochloride @ 25 g with sticker per 10 litres of water on a non rainy day.
- Prevailing cloudy weather is congenial for infestation of *anthracnose* on inflorescence and developing mango in south Konkan, spray Carbendazim @ 1 g + Mancozeb @ 0.5 g per litre of water on whole tree.
- **Gujarat:**
 - Complete transplanting of rice, maintain proper water level in the rice field and complete sowing of green gram upto 15th March in South Gujarat Heavy Rainfall Zone.
 - In North Saurashtra Zone, complete harvesting of wheat and undertake harvesting of matured cumin crop and transplanting of brinjal.
 - Taking the advantage of dry weather, undertake harvesting of wheat, cumin and chickpea and sowing of groundnut and sesame in South Saurashtra Zone.
 - Due to increase in temperature there are chances of attack of thrips in onion and garlic in Middle Gujarat Zone; spray Spinosad 48 SC @ 2 ml in 10 litres of water or Clorfenpyre 10 EC @ 7.5 ml per 10 litres of water.
 - Due to the unseasonal rainfall in North Saurashtra Zone, there is chance of outbreak of *Alternaria* blight disease in cumin; alternative spray of Hexaconazole @ 15 ml per 10 litres of water and Mencozeb @ 25 g per 10 litres of water to prevent alternaria blight is advised.
 - Heavy infestation of thrips is observed due to rise in temperature and migration of adults from harvested cotton crop into garlic and onion crops in North Saurashtra Zone; to control thrips, make alternative sprays of Spinosad @ 4 ml per 10 litres of water and Profenofos @ 20 ml per 10 litres of water at 10 days interval.
 - Suitable varieties for sowing are given in Annexure II.
- **Animal Husbandry**
 - Provide nutritive feed to cattle, keep animal shed hygienic and clean to avoid flies and mosquitoes in Gujarat.

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

Annexure I
Week by week Rainfall Distribution

Sub-Divisions	18.02.15		25.02.15		04.03.15	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**		**
Changlang	7.2	-73	6.6	-89	17.4	-71
Dibang Valley	15.0	-14	7.0	-90	131.0	249
East Kameng	0.0	-100	0.0	-10	0.0	-100
East Siang	45.3	226	31.4	44	83.3	272
Kurung Kumey	**	**	**	**	**	**
Lohit	8.1	-62	10.0	-62	53.6	95
Lower Dibang Valley	0.0	-100	4.6	-93	105.9	182
Lower Subansari	**	**	**	**	**	**
Papumpara	3.7	-86	7.3	-58	4.4	-71
Tawang	0.0	-100	0.0	-100	23.0	290
Tirap	2.6	-89	4.4	-81	2.8	-84
Upper Siang	12.8	-52	11.6	-80	219.4	228
Upper Subansari	0.0	-100	16.0	3	12.6	2
West Kameng	0.0	-74	0.8	-93	0.8	-86
West Siang	2.0	-60	3.0	-87	27.0	41
Assam&Meghalaya						
Assam						
Baksa	0.0	-100	0.0	-100	14.8	164
Barpeta	0.6	-93	4.8	-50	0.0	-99
Bongaigaon	0.0	-100	4.8	-54	0.5	-93
Cachar	0.0	-100	6.9	-61	4.2	-79
Chirang	0.0	-100	21.0	102	23.0	238
Darrang	0.0	-100	0.0	-100	0.0	-100
Dhemaji	0.0	-100	1.0	-91	35.0	169
Dhubri	0.0	-39	1.4	-51	8.7	20
Dibrugarh	8.2	-39	4.0	-74	17.7	9
Goalpara	0.0	-100	2.4	-59	1.0	-72
Golghat	10.1	-16	5.6	30	0.6	-92
Hailakandi	0.0	-100	22.5	8	0.0	-100
Jorhat	22.7	106	10.7	18	2.4	-73
Kamrup(Rural)	0.0	-100	8.4	29	12.5	108
Kamrup(Metro)	0.3	-94	2.2	-66	17.1	185
Karbi Anglong	3.2	-54	0.3	-97	6.9	-22
Karimganj	0.0	-100	2.0	-81	5.3	-57
Kokrajhar	0.0	-100	1.3	-86	0.4	-84
Lakhimpur	7.1	-41	4.4	-62	11.7	-10
Morigaon	0.0	-100	11.4	15	7.4	100
N.C.Hills	0.0	-100	0.0	-100	25.1	18
Nowgong	1.1	-75	4.8	-7	3.7	-27
Nalbari	0.0	-100	3.0	-25	10.3	69
Sonitpur	0.1	-99	1.7	-71	3.4	-29

Sibsagar	5.1	-30	7.9	-32	7.4	-22
Tinsukia	11.5	-22	3.7	75	36.2	84
Udalgiri	0.0	-100	2.5	-42	8.7	108
Meghalaya						
East Garo Hills	0.0	-100	3.4	-11	9.0	-55
East Khasi Hills	0.3	-94	9.8	16	11.4	7
Jaintia Hills	2.0	-79	1.0	-94	10.0	39
Ribhoi	7.4	236	0.0	-100	6.9	123
South Garo Hills	0.0	-100	10.0	335	10.0	-16
West Garo Hills	0.0	-100	0.4	-83	22.4	88
West Khasi Hills	2.0	-67	9.0	-20	12.0	97
NMMT						
Mizoram						
Aizwal	0.0	-100	15.0	16	0.0	-100
Champhai	**	**	**	**	**	**
Kolasib	**	**	10.0	-34	0.0	-100
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	0.0	-100	0.0	-100	0.0	-100
Serchhip	**	**	**	**	0.0	-100
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	3.0	-61	2.0	-44	0.0	-100
Churachandpur	**	**	**	**	**	**
Imphal east	0.0	-100	3.6	-59	1.8	-90
Imphal west	0.0	-100	0.3	-96	0.0	-100
Senapati	0.0	-100	4.0	11	1.0	-89
Tamenglong	**	**	**	**	**	**
Thoubal	0.0	-100	9.0	27	1.0	-92
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	9.6	638	13.1	1531	4.0	-32
Kephire	**	**	**	**	**	**
Kohima	9.6	63	13.4	29	3.8	-61
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	**	**
Mon	**	**	**	**	**	**
Paran	**	**	**	**	**	**
Phek	15.0	154	7.0	-33	0.0	-100
Tuensang	**	**	**	**	**	**
Wokha	6.0	-5	10.0	0	0.0	-100
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	0.0	-100	36.5	95	0.0	-100
North Tripura	0.0	-100	23.1	79	0.0	-100
South Tripura	0.0	-100	1.9	-87	0.1	-99
West Tripura	0.6	-90	12.9	14	1.1	-87
Himachal Pradesh						

Bilaspur	6.6	-67	54.0	238	131.4	742
Chamba	12.7	-53	109.8	329	118.0	184
Hamirpur	4.9	-77	57.4	332	90.3	405
Kangra	8.8	-60	50.7	126	100.4	402
Kinnaur	10.3	-66	60.3	146	177.2	695
Kullu	27.1	2	105.0	313	114.0	319
Lahaul and Spiti	30.0	-13	72.3	104	152.5	291
Mandi	11.8	-47	81.4	402	94.4	455
Shimla	12.0	-38	63.2	245	83.2	373
Sirmaur	0.6	-96	19.7	83	162.5	1364
Solan	4.6	-75	39.6	123	176.2	995
Una	3.9	-73	45.6	347	133.9	1213
Punjab						
Amritsar	8.1	-5	37.6	276	29.8	389
Barnala	0.0	-100	0.0	-100	14.8	411
Bhatinda	0.0	-100	3.2	-52	35.3	881
Faridkot	0.0	-100	11.0	224	18.8	887
Fatehgarh Saheb	0.8	-89	7.5	34	51.3	927
Ferozpur	3.6	-41	3.0	-21	10.3	203
Gurdaspur	4.6	-65	44.8	213	80.3	499
Hoshiarpur	2.4	-80	27.9	147	48.4	437
Jalandhar	8.7	-11	19.6	131	30.1	313
Kapurthala	5.3	-42	31.2	699	64.8	998
Ludhiana	1.3	-84	11.9	61	51.4	772
Mansa	0.0	-100	3.0	-33	19.4	385
Moga	5.2	18	0.0	-100	35.1	1363
Muktesar	0.0	-100	8.5	102	24.5	717
Nawashahar	0.6	-96	17.5	61	74.6	966
Patiala	0.2	-96	4.4	-44	56.6	893
Ropar	2.1	-86	26.6	186	72.2	903
Sangrur	0.5	-89	7.2	19	22.4	386
Mohali	0.3	-95	20.2	211	49.3	517
TarnTaran	4.1	-30	41.4	492	33.1	480
Haryana,Chd,Delhi						
Haryana						
Ambala	0.0	-100	9.9	58	86.8	1027
Bhiwani	0.0	-100	1.1	-72	17.1	756
Chandigarh	0.0	-100	22.3	153	74.0	825
Faridabad	0.0	-100	0.0	-100	66.4	1560
Fatehabad	0.0	-100	2.5	-37	27.2	907
Gurgaon	0.0	-100	0.0	-100	36.8	1128
Hissar	0.0	-100	0.9	-81	23.1	790
Jhajar	0.0	-100	2.4	-31	64.7	1648
Jind	0.0	-100	1.1	-53	43.9	399
Katihah	0.0	-100	4.0	-11	26.4	595
Karnal	0.0	-100	1.3	-76	71.6	1362
Kurukshetra	0.0	-100	0.4	-92	41.2	741
Mahendragarh	0.0	-100	0.0	-100	18.5	702
Mewat	0.0	-100	0.0	-100	48.1	1825

Palwal	0.0	-100	0.0	-100	41.0	1106
Panchkkula	0.0	-100	15.7	36	64.7	740
Panipat	0.0	-100	1.0	-80	63.1	1137
Rewari	0.0	-100	0.0	-100	81.3	4415
Rohtak	0.0	-100	0.0	-100	32.2	475
Sirsa	0.0	-100	2.2	-52	50.5	2004
Sonepat	0.0	-100	0.3	-93	69.0	1253
Yamunanagar	0.0	-100	6.4	-25	123.5	1336
Delhi						
Central Delhi	0.0	-100	0.0	-100	82.0	1244
East Delhi	0.0	-100	0.0	-100	35.0	474
New Delhi	0.0	-100	2.2	-63	78.3	1184
North Delhi	0.0	-100	0.0	-100	99.8	1536
North East Delhi	0.0	-100	0.0	-100	0.0	-100
North West Delhi	0.0	-100	0.0	-100	99.3	1528
South Delhi	0.0	-100	0.2	-97	68.7	1026
South West Delhi	0.0	-100	5.9	-1	81.3	1233
West Delhi	0.0	-100	1.0	-83	71.0	1064
Jammu & Kashmir						
Anantnag	18.6	-28	85.5	185	109.5	241
Badgam	25.8	34	50.1	171	75.1	244
Bandipore	**	**	**	**	**	**
Baramula	25.4	-30	99.5	76	90.9	87
Doda	17.6	-63	118.0	130	157.2	219
Ganderbal	31.2	64	63.6	274	105.0	430
Jammu	11.6	-37	58.9	196	115.2	773
Kargil	**	**	**	**	**	**
Kathua	4.4	-55	43.6	94	111.0	1094
Kistwar	**	**	**	**	**	**
Kulgam	12.8	-50	64.0	113	154.3	381
Kupwara	29.2	-14	114.5	242	73.4	86
Ladakh(Leh)	0.0	-100	1.7	16	0.6	-60
Poonch	**	**	**	**	**	**
Pulwama	6.7	-63	78.1	478	91.5	458
Rajouri	2.3	-81	59.9	192	116.5	1139
Ramban	19.1	-60	138.9	171	154.4	213
Reasi	16.9	-33	76.6	114	209.0	441
Samba	5.1	-72	39.5	98	109.5	730
Shopian	0.0	-100	**	**	**	**
Srinagar	24.8	30	90.2	430	71.2	260
Udhampur	5.1	-80	120.0	235	111.3	188
East Madhya Pradesh						
Anuppur	12.5	62	0.0	-100	33.4	329
Balaghat	6.3	85	0.0	-100	59.0	1374
Chhatarpur	1.3	-64	0.0	-100	27.9	1369
Chindwara	1.2	-61	0.0	-100	44.3	768
Damoh	8.5	60	0.0	-100	35.5	1124
Dindori	7.4	32	0.0	-100	54.4	822
Jabalpur	3.8	50	0.0	-100	62.5	2132

Katni	13.2	200	0.0	-100	47.0	1324
Mandla	4.9	-34	0.0	-100	92.3	1389
Narsingpur	0.0	-100	0.0	-100	38.0	1126
Panna	0.0	-100	0.0	-100	45.6	1973
Rewa	0.0	-100	0.0	-100	24.6	811
Sagar	0.0	-100	0.0	-100	17.8	410
Satna	1.4	-70	0.0	-100	55.6	2678
Seoni	21.8	540	1.4	-46	54.1	817
Shahdol	1.0	-87	0.0	-100	40.8	750
Sidhi	0.0	-100	0.0	-100	41.8	1800
Singrauli	0.0	-100	0.0	-100	54.1	3082
Tikamgarh	0.0	-100	0.0	-100	32.5	2221
Umaria	0.6	-92	0.0	-100	27.5	409
West Madhya Pradesh						
Agar	0.0	-100	0.0	-100	0.0	-100
Alirajpur	0.0	-100	0.0	-100	5.9	1073
Asoknagar	0.0	-100	0.0	-100	12.8	1721
Badwani	0.0	-100	0.0	-100	0.0	-100
Betul	6.5	489	0.0	-100	63.8	1723
Bhind	0.0	-100	0.0	-100	39.7	1885
Bhopal	0.0	-100	0.0	-100	16.0	967
Burhanpur	0.0	-100	0.0	-100	29.0	1511
Datia	0.0	-100	0.0	-100	18.9	1248
Dewas	0.0	-100	0.0	-100	0.0	-100
Dhar	0.0	-100	0.0	-100	1.0	414
Guna	0.0	-100	0.0	-100	6.1	336
Gwalior	0.0	-100	0.1	-96	15.5	814
Harda	0.0	-100	0.0	-100	27.1	1491
Hosangabad	0.8	-53	0.0	-100	48.0	1744
Indore	0.0	-100	0.0	-100	1.5	392
Jhabua	0.0	-100	0.0	-100	18.7	18633
Khandwa	0.0	-100	0.0	-100	26.7	1469
Khargone	0.0	-100	0.0	-100	6.6	1217
Mandsaur	0.0	-100	0.0	-100	22.8	2747
Morena	0.0	-100	0.0	-100	14.8	490
Neemuch	0.0	-100	0.0	-100	13.0	2067
Raisen	0.0	-100	0.0	-100	19.5	984
Rajgarh	0.0	-100	0.0	-100	2.0	100
Ratlam	0.0	-100	0.0	-100	7.6	1420
Sehore	0.0	-100	0.0	-100	18.8	1006
Shajapur	0.0	-100	0.0	-100	7.2	794
Sheopur Kalani	0.0	-100	0.0	-100	17.5	1650
Shivpuri	0.0	-100	0.0	-100	20.0	1074
Ujjain	0.0	-100	0.0	-100	9.2	922
Vidisha	0.0	-100	0.0	-100	14.6	1364
Chhattisgarh						
Bastar	0.0	-100	1.7	-40	5.9	74
Bijapur	0.0	-100	0.0	-100	30.5	3706
Bilaspur	3.2	-21	0.0	-100	20.8	278

Dantewara	0.0	-100	0.0	-100	0.0	-100
Dhamtari	0.0	-100	0.0	-100	10.7	269
Durg	0.0	-100	0.0	-100	30.5	724
Janjgir	0.0	-100	0.0	-100	0.0	-100
Jashpurnagar	0.0	-100	0.0	-100	2.9	-57
Kanker	0.0	-100	0.0	-100	12.8	220
Korba	0.3	-93	0.0	-100	11.0	80
Koriya	0.0	-100	0.0	-100	15.5	1838
Kawardha	0.0	-100	0.0	-100	1.5	-65
Mahasumund	0.0	-100	0.0	-100	1.8	-42
Narayanpur	0.0	-100	0.0	-100	0.0	-100
Raigarh	0.0	-100	0.0	-100	0.0	-100
Raipur	0.2	-92	0.0	-100	12.6	231
Rajandgaon	0.4	-83	0.0	-100	19.5	427
Surguja	2.7	-22	0.0	-100	10.0	156
East Uttar Pradesh						
Allahabad	0.0	-100	0.0	-100	38.0	1708
Ambedkar Nagar	0.0	-100	0.0	-100	2.1	5
Azamgarh	0.0	-100	0.0	-100	31.7	993
Bahraich	0.0	-100	0.0	-100	19.5	679
Ballia	0.0	-100	0.0	-100	3.9	285
Balrampur	0.0	-100	0.0	-100	8.5	286
Banda	0.0	-100	0.0	-100	80.0	3379
Barabanki	0.0	-100	0.0	-100	20.9	849
Basti	0.0	-100	0.0	-100	16.0	742
Chandauli	0.0	-100	0.0	-100	6.0	186
Deoria	0.0	-100	0.0	-100	13.5	864
Faizabad	0.0	-100	0.0	-100	13.2	50
Farrukhabad	0.0	-100	0.0	-100	19.6	991
Fatehpur	0.0	-100	0.0	-100	19.7	884
Gazipur	0.0	-100	0.0	-100	13.9	633
Gonda	0.0	-100	0.0	-100	17.5	775
Gorakhpur	0.0	-100	0.0	-100	26.2	1208
Hardoi	0.0	-100	0.0	-100	32.4	1145
Jaunpur	0.0	-100	0.0	-100	14.1	730
Kannauj	0.0	-100	0.0	-100	19.0	660
Kanpur City	0.0	-100	0.0	-100	67.3	3641
Kanpur Dehat	0.0	-100	0.0	-100	25.2	1382
Kaushambi	0.0	-100	0.0	-100	39.3	1688
Kheri	0.0	-100	0.0	-100	69.4	2674
Kushi nagar	0.0	-100	0.0	-100	5.3	196
Lucknow	0.0	-100	0.0	-100	46.5	2223
Maharajganj	0.0	-100	0.0	-100	4.0	233
Mau	0.0	-100	0.0	-100	4.5	87
Mirzapur	0.0	-100	0.0	-100	12.7	262
Pratapgarh	0.0	-100	0.0	-100	42.1	1583
RaiBareilly	0.0	-100	0.0	-100	18.2	1196
Sahuji Maharajnagar	0.0	-100	0.0	-100	62.5	3372
Sant Kabirnnagar	0.0	-100	0.0	-100	7.5	369

Sant Ravidas Nagar	0.0	-100	0.0	-100	37.0	1662
Shrawasti	0.0	-100	**	**	**	**
Sidharthnagar	0.0	-100	0.0	-100	5.3	253
Sitapur	0.0	-100	0.0	-100	31.8	759
Sonbhadra	0.0	-100	0.0	-100	18.7	1001
Sultanpur	0.0	-100	0.0	-100	18.0	902
Unnao	0.0	-100	0.0	-100	37.5	1463
Varanasi	0.0	-100	0.0	-100	12.1	348
West Uttar Pradesh						
Agra	0.0	-100	0.0	-100	27.0	1399
Aligarh	0.0	-100	0.0	-100	36.4	1483
Auraiya	0.0	-100	0.0	-100	36.5	1487
Badaun	0.0	-100	0.0	-100	37.0	1269
Baghpat	0.0	-100	0.0	-100	92.5	2884
Bareilly	0.0	-100	0.6	-88	64.3	1975
Bijnor	0.0	-100	0.4	-94	47.4	691
Bulandsahar	0.0	-100	0.0	-100	30.9	929
Etah	0.0	-100	0.0	-100	22.1	783
Etawah	0.0	-100	0.0	-100	14.2	610
Firozabad	0.0	-100	0.0	-100	17.1	1038
GBNagar	0.0	-100	0.0	-100	27.5	525
Ghaziabad	0.0	-100	0.0	-100	49.1	1041
Hamirpur	0.0	-100	0.0	-100	15.6	607
Jalaun	0.0	-100	0.0	-100	20.5	1181
Jhansi	0.0	-100	0.0	-100	11.9	645
Jotiba Phule Nagar	0.0	-100	0.0	-100	59.5	1703
Kanshiramnagar	0.0	-100	0.0	-100	10.0	567
Lalitpur	0.0	-100	0.0	-100	9.0	400
Mahamaya Nagar	0.0	-100	0.0	-100	21.3	967
Mahoba	0.0	-100	0.0	-100	11.8	490
Mainpuri	0.0	-100	0.0	-100	23.2	1189
Mathura	0.0	-100	0.0	-100	5.5	90
Meerut	0.0	-100	0.0	-100	81.3	1667
Moradabad	0.0	-100	0.2	-96	51.6	1158
Muzzaffarnagar	0.0	-100	1.4	-75	47.6	1883
Pilibhit	0.0	-100	0.0	-100	47.9	2182
Rampur	0.0	-100	0.4	-93	68.9	943
Saharanpur	0.0	-100	0.0	-100	86.0	2588
Shahjahanpur	0.0	-100	0.0	-100	48.4	2320
Uttarakhand						
Almora	0.0	-100	0.8	-92	113.7	906
Bageshwar	0.0	-100	19.0	88	56.8	402
Chamoli	0.0	-100	18.8	-10	97.7	437
Champawat	0.0	-100	1.5	-84	129.5	1389
Dehradun	0.0	-100	8.8	-33	126.3	1369
Garhwal Pauri	0.0	-100	2.7	-71	66.6	1089
Garhwal Tehri	0.0	-100	21.6	95	124.1	854
Haridwar	0.0	-100	1.8	-80	96.0	832
Nainital	0.0	-100	4.4	-58	161.4	1893

Pithorgarh	4.0	-76	21.6	32	108.1	738
Rudraprayag	0.2	-99	27.2	30	88.3	445
Udham Sing Nagar	0.0	-100	0.5	-89	74.0	4253
Uttarkashi	5.0	-82	36.6	138	103.3	584
Bihar						
Araria	0.0	-100	6.7	291	2.4	26
Arwal	0.0	-100	0.0	-100	0.0	-100
Aurangabad	0.0	-100	0.0	-100	3.4	19
Banka	0.0	-100	0.0	-100	0.0	-100
Begusarai	0.0	-100	0.0	-100	0.0	-100
Bhabua	0.9	-63	0.0	-100	7.9	139
Bhagalpur	0.0	-100	2.3	1	1.6	-35
Bhojpur	0.0	-100	0.0	-100	8.3	388
Buxar	0.0	-100	0.0	-100	0.0	-100
Darbhanga	0.0	-100	0.0	-100	14.8	825
East Champaran	0.0	-100	0.0	-100	22.0	1732
Gaya	0.1	-97	0.0	-100	7.6	321
Gopalganj	0.0	-100	0.0	-100	29.7	1647
Jahanabad	0.0	-100	0.0	-100	1.2	-25
Jamui	0.0	-100	0.0	-100	0.3	-88
Kathihar	5.9	633	5.3	103	0.0	-100
Khagadia	0.0	-100	16.4	1947	0.0	-100
Kishanganj	0.0	-100	1.9	12	0.0	-100
Lakhisarai	0.0	-100	0.0	-100	0.0	-100
Madhepura	0.0	-100	0.0	-100	4.2	147
Madhubani	0.0	-100	0.0	-100	6.4	220
Monghyar	0.0	-100	**	**	0.4	-87
Muzaffarpur	0.0	-100	0.0	-100	7.8	550
Nalanda	0.0	-100	0.0	-100	2.8	-20
Nawada	0.0	-100	0.0	-100	0.0	-100
Patna	0.0	-100	0.0	-100	6.6	214
Purnea	0.0	-100	3.9	11	1.2	-32
Rohtas	0.0	-100	0.0	-100	9.0	109
Saharsha	0.0	-100	0.0	-100	6.0	233
Samstipur	0.0	-100	1.2	-60	12.1	707
Saran	0.0	-100	0.0	-100	7.1	255
Sheikpura	0.0	-100	0.0	-100	3.0	-9
Sheohar	0.0	-100	**	**	15.0	1567
Sitamarhi	0.0	-100	0.0	-100	0.0	-100
Siwan	0.0	-100	0.0	-100	0.0	-100
Supaul	0.0	-100	4.8	46	5.0	231
Vaishali	0.0	-100	0.0	-100	6.0	445
West Champaran	0.0	-100	0.0	-100	10.3	503
Jharkhand						
Bokaro	0.1	-96	0.9	-76	7.9	203
Chatra	0.0	-100	0.0	-100	7.6	322
Deoghar	0.0	-100	0.0	-100	1.9	27
Dhanbad	0.0	-100	1.2	-74	3.1	-33
Dumka	0.5	-67	5.0	85	5.0	85

East Singbhum	0.0	-100	0.0	-100	1.5	-76
Garhwa	0.0	-100	0.0	-100	12.2	771
Giridih	0.0	-100	2.4	-1	3.5	13
Godda	0.0	-100	7.3	127	4.1	51
Gumla	0.0	-100	**	**	**	**
Hazaribagh	0.0	-100	0.1	-96	9.0	114
Jamtara	0.0	-100	5.7	49	2.6	30
Khunti	0.0	-100	0.0	-100	0.0	-100
Koderrna	0.0	-100	0.0	-100	6.5	161
Latehar	0.0	-100	0.0	-100	4.0	-8
Lohardagga	0.0	-100	0.0	-100	12.0	118
Pakur	0.0	-100	0.0	-100	0.8	-71
Palamau	0.5	-85	0.0	-100	14.6	483
Ramgarh	0.0	-100	0.0	-100	3.0	-32
Ranchi	0.0	-100	0.0	-100	4.1	-40
Sahebganj	0.0	-100	12.8	814	1.0	25
Saraikela	0.0	-100	0.0	-100	0.0	-100
Simdega	5.4	42	**	**	**	**
West Singbhum	0.0	-100	0.0	-100	1.1	-86
East Rajasthan						
Ajmer	0.0	-100	0.0	-98	10.2	2459
Alwar	0.0	-100	0.0	-100	59.0	2085
Banswara	0.0	-100	0.0	-100	6.1	2967
Baran	0.0	-100	0.0	-100	7.0	900
Bharatpur	0.0	-100	0.0	-100	30.9	1136
Bhilwara	0.0	-100	0.0	-100	12.9	1192
Bundi	0.0	-100	0.0	-100	39.0	5468
Chittorgarh	0.0	-100	0.0	-100	23.4	5741
Dausa	0.0	-100	0.0	-100	25.2	1473
Dholpur	0.0	-100	0.0	-100	33.5	1663
Dungarpur	0.0	-100	0.0	-100	18.8	18733
Jaipur	0.0	-100	0.0	-100	24.0	2079
Jhalawar	0.0	-100	0.0	-100	12.4	1274
Jhunjhunu	0.0	-100	0.5	-81	22.3	1140
Karauli	0.0	-100	0.0	-100	21.3	1230
Kota	0.0	-100	0.0	-100	22.2	2124
Pratapgarh	**	**	0.0	-100	13.6	3300
Rajsamand	0.0	-100	0.0	-100	7.1	1329
Sawai Madhopur	0.0	-100	0.0	-100	23.3	1358
Sikar	0.0	-100	0.0	-100	10.9	625
Sirohi	0.0	-100	0.0	-100	5.3	963
Tonk	0.0	-100	0.0	-100	33.8	2153
Udaipur	0.0	-100	0.0	-100	13.6	4433
West Rajasthan						
Barmer	0.0	-100	0.0	-100	3.0	1410
Bikaner	0.0	-100	0.0	-100	34.3	1920
Churu	0.0	-100	0.0	-100	30.1	1784
Hanumangarh	0.0	-100	0.0	-100	39.8	2388
Jaisalmer	0.0	-100	0.0	-100	10.9	2614

Jalore	0.0	-100	0.0	-100	0.4	100
Jodhpur	0.0	-100	0.0	-100	8.3	728
Nagaur	0.0	-100	0.0	-100	23.2	1832
Pali	0.0	-100	0.0	-100	2.2	175
Sri Ganganagar	0.0	-100	1.7	-32	32.1	1905
Gujarat Region						
Ahmedabad	0.0	-100	0.0	-100	3.8	200
Anand	0.0	-100	0.0	-100	16.4	200
Banaskantha	0.0	-100	0.0	-100	0.1	-71
Baroda	0.0	-100	0.0	-100	4.6	200
Broach	0.0	-100	0.0	-100	7.4	200
DNH	**	**	**	**	**	**
Dahod	0.0	-100	0.0	-100	6.6	200
Daman	0.0	-100	0.0	-100	0.0	-100
Dangs	0.0	-100	0.0	-100	5.0	200
Gandhinagar	0.0	-100	0.0	-100	5.2	1200
Kheda	0.0	-100	0.0	-100	1.4	200
Mehsana	0.0	-100	0.0	-100	4.3	4233
Narmada	0.0	-100	0.0	-100	16.7	200
Navsari	0.0	-100	0.0	-100	2.5	200
Panchmahal	0.0	-100	0.0	-100	1.1	200
Patan	0.0	-100	0.0	-100	0.3	-38
Sabarkantha	0.0	-100	0.0	-100	9.4	4577
Surat	0.0	-100	0.0	-100	5.9	200
Tapi	0.0	-100	0.0	-100	3.2	200
Valsad	0.0	-100	0.0	-100	10.4	200
S K & Diu region						
Amreli	0.0	-100	0.0	-100	10.8	200
Bhavnagar	0.0	-100	0.0	-100	6.4	200
Diu	0.0	-100	0.0	-100	3.4	200
Jamnagar	0.0	-100	0.0	-100	1.7	190
Junagarh	0.0	-100	0.0	-100	6.0	200
Kutch	0.0	-100	0.0	-100	2.1	925
Porbandar	0.0	-100	0.0	-100	11.0	10867
Rajkot	0.0	-100	0.0	-100	5.7	200
Surendranagar	0.0	-100	0.0	-100	1.5	200
Maharashtra & Goa						
Konkan & Goa						
Mumbai City	0.0	-100	0.0	-100	13.0	4233
Mumbai Suburban	0.0	-100	0.0	-100	11.3	3667
North Goa	0.0	-100	0.0	-100	40.3	200
Raigad	0.0	-100	0.0	-100	41.0	200
Ratnagiri	0.0	-100	0.0	-100	36.5	200
Sindhudurg	0.0	-100	0.0	-100	45.9	45800
South Goa	0.0	-100	0.0	-100	30.8	200
Thane	0.0	-100	0.0	-100	21.9	200
Madhya Maharashtra						
Ahmednagar	0.0	-100	0.0	-100	33.3	5458
Dhule	0.0	-100	**	**	0.0	-100

Jalgaon	0.0	-100	0.0	-100	20.0	2122
Kolhapur	0.0	-100	0.0	-100	30.0	9903
Nandurbar	**	**	**	**	0	-100
Nasik	0.0	-100	0.0	-100	21.1	5175
Pune	0.0	-100	0.0	-100	40.0	39888
Sangli	0.0	-100	0.0	-100	24.5	12157
Satara	0.0	-100	0.0	-100	25.2	12496
Solapur	0.0	-100	0.0	-100	13.8	1875
Marathwada						
Aurangabad	0.0	-100	0.0	-100	15.9	1669
Beed	0.0	-100	0.0	-100	16.9	1587
Hingoli	0.0	-100	**	**	19.6	833
Jalna	0.0	-100	0.0	-100	18.5	1959
Latur	0.0	-100	0.0	-100	11.9	467
Nanded	0.0	-100	0.0	-100	21.4	2037
Usmanabad	0.0	-100	0.0	-100	14.8	956
Parbhani	0.0	-100	0.0	-100	14.4	799
Vidarbha						
Akola	0.0	-100	0.0	-100	79.6	5586
Amraoti	0.0	-100	0.0	-100	55.0	2797
Bhandara	0.0	-100	0.0	-100	59.8	1829
Buldhana	0.2	7	0.0	-100	22.3	1388
Chandrapur	0.0	-100	0.2	-87	40.7	944
Gadchiroli	0.0	-100	0.0	-100	27.4	1043
Gondia	1.2	-60	0.1	-94	49.7	1281
Nagpur	0.9	-63	4.9	132	50.8	1441
Wardha	0.0	-100	0.0	-100	51.8	1227
Washim	0.0	-100	0.0	-100	37.9	2128
Yeotmal	0.0	-100	0.0	-100	46.0	2201
Odisha						
Angul	3.5	-25	0.0	-100	2.2	-75
Balasore	1.1	-91	10.2	22	6.2	-43
Bargarh	4.8	19	0.0	-100	6.1	3
Bhadrak	3.1	-72	0.0	-100	0.6	-92
Bolangir	0.8	-83	0.0	-100	4.3	-19
Boudh	0.0	-100	0.0	-100	0.7	-93
Cuttack	0.0	-100	0.0	-100	0.1	-99
Deogarh	6.2	20	0.0	-100	5.6	-6
Dhenkanal	0.0	-100	0.0	-100	0.0	-100
Gajapati	8.2	-58	1.8	-76	1.0	-87
Ganjam	1.3	-83	0.0	-99	4.1	-34
Jagatsingpur	4.2	-55	3.6	-46	1.1	-85
Jajpur	8.4	-19	0.0	-100	0.3	-98
Jharsuguda	3.5	14	0.0	-100	3.0	-56
Kalahandi	0.0	-100	0.0	-100	1.0	-80
Kandhamal	7.2	-18	0.6	-87	1.6	-84
Kendrapara	1.2	-92	2.5	-66	3.3	-75
Keonjhar	15.2	60	0.0	-100	5.2	-54
Khurda	4.2	-46	0.8	-92	0.0	-99

Koraput	0.8	-77	0.0	-100	1.1	-71
Malkangiri	0.0	-100	3.0	30	2.0	43
Mayurbhanj	2.3	-57	0.0	-100	6.5	-53
Nawapara	0.0	-100	0.0	-100	0.4	-92
Nawarangpur	0.0	-100	0.0	-100	2.8	37
Nayagarh	2.0	-63	0.0	-100	3.5	-57
Puri	3.1	-64	0.0	-100	0.0	-100
Rayagada	0.8	-92	0.0	-100	0.9	-85
Sambalpur	3.3	-37	0.0	-100	6.8	15
Sonepur	0.3	-92	0.0	-100	0.3	-94
Sundargarh	0.4	-88	0.0	-100	1.4	-78
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	0.0	-100	9.3	-10	0.0	-100
North & Middle Andaman	0.0	-100	0.0	-100	0.0	-100
South Andaman	0.0	-100	0.5	-89	0.0	-100
GWB						
Bankura	0.0	-87	0.8	71	2.2	-53
Birbhum	3.9	-100	3.8	-5	3.5	25
Burdwan	1.2	97	4.5	-18	2.4	-47
East Midnapore	0.3	-68	0.1	-98	11.5	62
Hooghly	1.1	-92	2.8	-72	4.3	29
Howrah	3.1	-82	1.0	-82	0.0	-100
Kolkata	0.0	-45	0.4	-95	8.8	26
Murshidabad	8.3	-100	3.5	-8	0.5	-85
Nadia	1.0	360	2.6	-20	3.5	35
24 Pargana (N)	0.0	-70	0.5	-91	6.0	62
Purulia	4.3	-99	0.1	-99	1.2	-78
24 Pargana (S)	0.3	-46	0.0	-100	5.9	-45
West Midnapore	1.8	-94	4.4	51	9.3	10
SHWB & Sikkim						
Cooch Behar	0.0	-100	11.7	194	0.7	-78
Darjeeling	0.4	-97	1.9	-76	16.3	133
East Sikkim	8.4	-42	0.7	-94	23.5	74
Jalpaiguri	0.0	-100	7.8	65	9.3	93
Malda	0.0	-100	0.6	-81	0.5	-81
North Dinajpur	0.0	-100	5.3	200	1.5	-12
North Sikkim	13.7	-33	2.2	-92	31.9	61
South Dinajpur	0.0	-100	7.7	31	8.1	212
South Sikkim	5.1	-65	0.0	-100	7.7	-43
West Sikkim	10.2	-50	1.3	-95	5.3	-73
Karnataka						
Coastal Karnataka						
Dakshin Kannada	0.0	-100	2.0	297	1.4	200
Udupi	0.0	-100	0.0	-100	0.0	-100
Uttar Kannada	0.0	-100	0.0	-100	17.4	200
N I Karnataka						
Bagalkote	0.0	-100	0.0	-100	3.0	333
Belgaum	0.0	-100	0.0	-100	20.4	4993

Bidar	0.0	-100	0.0	-100	21.7	2607
Bijapur	0.0	-100	0.0	-100	1.2	31
Dharwad	0.0	-100	0.0	-100	6.4	959
Gadag	0.0	-100	0.0	-100	0.2	-43
Gulbarga	0.0	-100	0.0	-100	5.7	1314
Haveri	0.0	-100	0.0	-100	1.0	156
Koppal	0.0	-100	0.0	-100	0.6	-31
Raichur	0.0	-100	0.0	-100	1.0	-26
Yadgir	0.0	-100	0.0	-100	3.0	273
SI Karnataka						
Bangalore Rural	0.0	-100	0.0	-100	0.2	0
Bangalore Urban	0.0	-100	0.0	-100	21.5	794
Bellary	0.0	-100	0.0	-100	21.4	919
Chamarajnar	0.0	-100	0.0	-100	18.2	856
Chichballapur	0.0	-100	0.0	-100	35.2	1752
Chickmagalur	0.0	-100	0.4	-68	0.0	-96
Chitradurga	0.0	-100	0.0	-100	4.1	929
Davangere	0.0	-100	0.0	-100	0.0	-100
Hassan	0.0	-100	0.0	-100	0.0	-100
Kodagu	0.0	-100	4.8	119	0.1	-90
Kolar	0.0	-100	0.0	-100	32.9	2252
Mandya	0.0	-100	0.0	-100	5.2	418
Mysore	0.0	-100	0.0	-100	4.9	714
Ramnagara	0.0	-100	0.0	-100	5.3	250
Shimoga	0.0	-100	0.0	-100	0.4	19
Tumkur	0.0	-100	0.0	-100	2.1	63
Kerala						
Alappuzha	0.9	-84	0.0	-100	27.4	335
Kannur	0.0	-100	0.0	-100	1.3	567
Ernakulam	0.5	-86	0.0	-100	9.7	185
Idukki	5.8	106	0.0	-100	48.6	465
Kasaragod	0.0	-100	0.0	-100	6.0	200
Kollam	18.2	164	0.0	-100	20.0	104
Kottayam	4.1	-46	0.0	-99	25.9	685
Kozhikode	0.0	-100	0.0	-100	11.3	1510
Malappuram	0.0	-100	0.0	-100	3.0	900
Palakkad	0.0	-100	0.0	-100	7.9	393
Pathanamthitta	3.9	-57	13.4	-94	25.8	165
Thiruvananthapuram	0.0	-100	0.0	-100	6.8	61
Thrissur	0.0	-100	0.0	-100	0.1	-94
Wynad	0.0	-100	0.0	-100	0.5	-67
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	0.0	-100
Chennai	0.0	-100	0.0	-100	0.0	-100
Coimbatore	0.0	-100	0.0	-100	7.5	200
Cuddalore	0.0	-100	0.0	-100	0.4	-93
Dharmapuri	0.0	-100	0.0	-100	15.6	499
Dindigul	0.0	-100	0.0	-100	9.7	150
Erode	0.0	-100	0.0	-100	3.7	74

Kanchipuram	0.0	-100	0.0	-100	0.0	-100
Kanyakumari	0.0	-100	0.0	-100	22.0	261
Karikal	0.0	-100	0.0	-100	0.0	-100
Karur	0.0	-100	0.0	-100	1.8	9
Krishnagiri	0.0	-100	0.0	-100	2.2	55
Madurai	0.0	-100	0.0	-100	0.0	-100
Nagapattinam	0.0	-100	0.0	-100	0.0	-100
Namakkal	0.0	-100	0.0	-100	1.5	3
Nilgiris	0.0	-100	0.0	-100	3.8	-28
Perambalur	0.0	-100	0.0	-100	1.0	-33
Puducherry	0.0	-100	0.0	-100	0.2	-95
Pudukottai	0.0	-100	0.0	-100	3.2	18
Ramanathapuram	0.0	-100	0.0	-100	0.5	-91
Salem	0.0	-100	0.0	-100	7.8	223
Sivaganga	0.0	-100	0.0	-100	3.1	-10
Thanjavur	0.0	-100	0.0	-100	0.4	-91
Theni	0.0	-100	0.0	-100	16.5	162
Tirunelveli	1.3	-100	1.3	-100	21.7	96
Tirupur	0.0	-100	0.0	-100	12.6	742
Tiruvallur	0.0	-100	0.0	-100	0.1	-97
Tiruvannamalai	0.0	-100	0.0	-100	1.5	-23
Tiruvarur	0.0	-100	0.0	-100	0.0	-100
Toothukudi	0.0	-84	0.0	-100	7.8	6
Trichy	0.0	-100	0.0	-100	2.0	-5
Vellore	0.0	-100	0.0	-100	5.5	403
Villupuram	0.0	-100	0.0	-100	0.0	-100
Virudhunagar	0.0	-100	0.0	-100	10.0	133
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	0.0	-100	0.0	-100	0.0	-100
Guntur	0.0	-100	0.0	-100	0.7	-33
Krishna	0.0	-100	0.0	-100	0.1	-92
Nellore	0.0	-100	0.0	-100	133.6	8808
Prakasam	0.0	-100	0.0	-100	2.7	28
Sirkakulam	4.0	-23	0.1	-98	0.0	-100
Visakhapatnam	0.0	-100	0.2	-96	0.0	-99
Vizianagram	0.6	-85	0.6	-86	1.0	-75
West Godavari	0.1	-96	0.0	-100	0.9	-64
Royalaseema						
Anantapur	0.0	-100	0.0	-100	3.7	149
Chittoor	0.0	-100	0.0	-100	56.4	4598
Cuddapah	0.0	-100	0.0	-100	8.2	1274
Kurnool	0.0	-100	0.0	-100	45.5	4453
Telangana						
Adilabad	0.0	-100	0.0	-100	27.2	777
Hyderabad	0.0	-100	0.0	-100	14.4	749
Karimnagar	0.0	-100	0.0	-100	17.1	755
Khammam	0.0	-100	0.0	-100	2.8	39
Mehabubnagar	0.0	-100	0.0	-100	13.7	1417

Medak	0.0	-100	0.0	-100	14.5	1012
Nalgonda	0.0	-100	0.0	-100	1.5	32
Nizamabad	0.0	-100	0.0	-100	22.7	1789
Rangareddy	0.0	-100	0.0	-100	13.9	3370
Warangal	0.0	-100	0.0	-100	6.3	426

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

Annexure II List of varieties

Karnataka

Sunflower: Mordern, K.B.S.H-1, 41, 42 and 44

Maize: Ganga-11, Deccan-103, N.A.C-6002 & 6004, Nityashree

Groundnut: ICGS-11, K-134, Chintamani-2(KCH-2)

Ragi: Indaf-5, GPU-26 and 48

Sugar-cane: Co-86032, Co-94012

Tamil Nadu:

Irrigated sesame: TMV 4, TMV 6 and SVPR1

Cotton: MCU-5, Surabhi and SVPR-2

Assam

Sunflower: Jwalamukhi.

Green gram: Pratap, T-44, Kopergaon, AAU-39, K-851 and ML-55.

Black gram: T-9, Pant-U-19, UG-157.

Direct seeded ahu rice: Banglami, Rangadoria, Ahu joha, Rasi, Banglami, Rangadoria, Ahu joha, Rasi.

Okra: Pusa Sawani, Arka Anamika, Parbhdani Kranti

Odisha

Sunflower: Morden, Sunrise, Surya and Hybrid varieties like KBSH-1, KBSH-3 and MSFH.

Groundnut: Smruti, TAG-27, TAG – 24 and JL-24

Onion: Nasik Red, Patna Red, Pune Red, Bellary Red, Pusa Ratnar, Pusa Madhavi, Arka Niketan ,Arka Pragati

Ragi: HYVs. like Subhra, Vairabi, Dibyasingh, Nilachala, Subhra, Godavari and Chilka.

Bihar

Boro rice: Gutum, Prabhat, Richaria, Dhanlaxmi, SarojRajendraBhagvati, and R.A.U

Sweet Potato: Cross 4 and Rajendra shakarkand 35

Okra: Parvani kranti, Arka abhay, Arka anamika, Barsha Uphar, KS 312, Okra 4, Punjab 7, Pant Bhindi 1

Jharkhand:

Summer rice: IR-36, IR-64, Naveen, lalat, Parijat (80-85 days).

Summer maize: Birsa Makka-1, Birsa Makka-2, Suwan-1(Hybrid), HQPM (Hybrid)

Green gram: mung S.M.L.- 668

Sugarcane: BO 147

Okra: Improved varieties – Pusa A - 4, Prabhani Kranti, Arka Anamika, Versha Uphar & Hybrid varieties –Sonal and Sarika

Jammu & Kashmir

Onion: Agrifound Parvati, Pusa red, N-53.

Uttarakhand

Tomato: VL Tomato-3, Pant T-3, Him Sona, Him Shikhar.

Capsicum: California Vander, Pus Dipti, Anupam. Heera, Indira, Supriya & Bharat.

Potato: Kufri- Jyoti, Ashok, Anand

Moong: Pant Moong-2, Pant Moong-4, Pant Moong-5, Pant Moong-6, Narendra Moong-1

Himachal Pradesh

Wheat: HPW-155, HPW-89, HPW-147, HPW-236, HPW-211 in low and mid hill and HPW-155, HPW-236, HPW-42 in high hill

Late variety of Cauliflower: broccoli

Cauliflower: Pusa-snowwall

Radish: Japanese white, Chinese pink and mino early white

Turnip: PTWG-1

Carrot: Pusa kesar

Fenugreek: I.C. 74, Kasoori

East Uttar Pradesh

Wheat: Narendra-1012, HD-2824, 2733, HP-1731, UP-2382, PWD-343, CVW-38, DBW-39, UO-2382, HUW-510

Wheat (Late varieties): Malaveey-234, HP-1633, H-1744, Narendra-1014, UP-2425

Onion: Pusa red, Kalynpur red, light red

Lentil: T-8, Pant L-406, 234

Chilli: Patasi-1, Jwala, Sadabahar

Lobia: lobia 263, Pusa Phaguni

Tomato: Pant T-2, Azad T-2, Narendra-1,2,4,5,6

Maize: Navjyoti, Kanchan, Gaurav, Surya, Navin, Shweta, Azad Uttam, Prakash, Deccan-115, MMH-135, Ganga-11, Pusa, Maize-2, JH-3459

Urd: T-9, Narendra-1, Azad-1, Uttar Azad-2, Shekhar-2

West Uttar Pradesh:

Wheat (non-irrigated): K-9644, Maghar (K-8027), Mandakini (K-9351), Indra (K-8962), Gomati (K-9465), HDR-77, HD-2888

Wheat (Irrigated): K-307, DBW-17, PBW-343,502,550, GW-366, K-1006, 607,402, DVW-39

KRL-210, 213, 19, K-8434(Prasad), NW-1067

Lentil: Narendra-1, DPL-62, Pant-5, L-4076, K-75, HUL-57, Shekhar-3, 2, IPL-81

Sunflower: No.1, PAC- 302, SH-322

Punjab

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

Rajasthan

Groundnut: T.A.G.24, T.G.37A, G.G.2, D.H.86.

Maharashtra

Madhya Maharashtra

Groundnut: SB-11, JL-286, Phule Unati, TPG-41, TG-26 or JL-501.

Sunflower: SS-56, Modern, EC-68414 or bhanu and hybrid varieties like KBSH-1 or phule Raviraj or MSFH-17.

Marathwada

Jowar: Parbhani Moti or Parbhani Jyoti.

suru Sugarcane: CO-86032, COM- 7125, CO-8014 or CO-740

Okra: Parbhani Kranti

Vidarbha

Groundnut: TAG-24, TG-26 or SB-11.

Water Melon: Sugar baby, Arka Jyoti or Arka Manik.

Okra: Arka Anamika, Parbhani Kranti, Akola Bahar or Phule Utkarsha.

Sesamum: AKT-101 or NT-11-99.

Gujarat

Groundnut: GG-2, 4 and GG-20, TAG-24, TG-37-A, TPG-41, GG-2, GJG-3.

Sesamum: G.Til-2, G.Til-3.

Cowpea: Guj. Cowpea-4, 5 and Pusa Falguni.

Green gram: Guj. Mung-3, 4.

Brinjal: Junagadh oblong, Junagadh long, Guj. Bringle-2.

Lady' finger: Guj. Hy.-1 & 2.

Ridge gourd: Pusa nasdar, Jaipuri.

Bottle gourd: Junagadh tender long, Pusa summer prolific long.

Sponge Gourd: Pusa chikni.

Bitter Gourd: Priya, Pusa domosmi.

Cluster bean: Pusa sadabahar, Pusa navbahar, IC-11388.

Watermelon: Sugar baby, Arka jyoti.