



National Agromet Advisory Service Bulletin



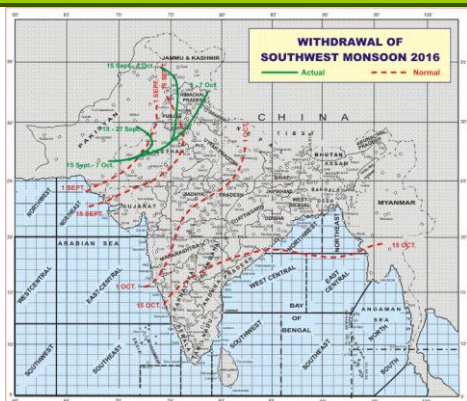
Friday 7th October 2016
(For the period 7th to 11th October 2016)



Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
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Weblink For
District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>
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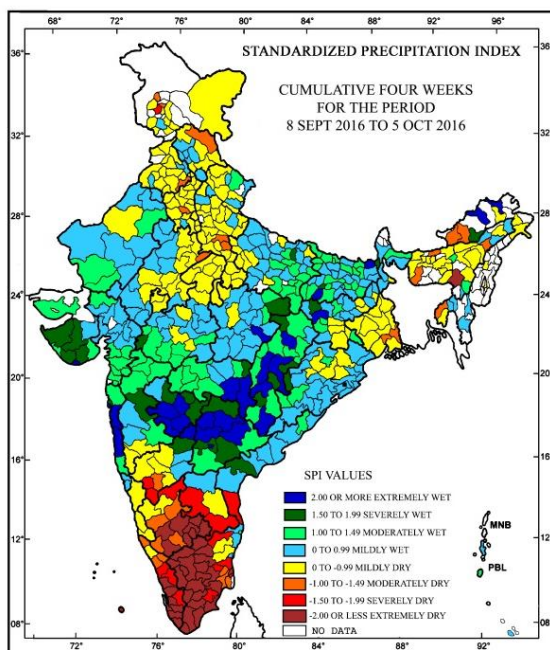
Monsoon Watch



- The withdrawal line of southwest monsoon continues to pass through Kalpa, Karnal, Churu, Phalodi and Jaisalmer. Conditions are favourable for further withdrawal of southwest monsoon from some more parts of northwest India during next 24 hours.
- Based on the 24 hours rainfall data ending at 0830 hours IST of 6th October 2016; southwest monsoon **vigorous** over Gujarat state and East Rajasthan and active over East Uttar Pradesh and Odisha.

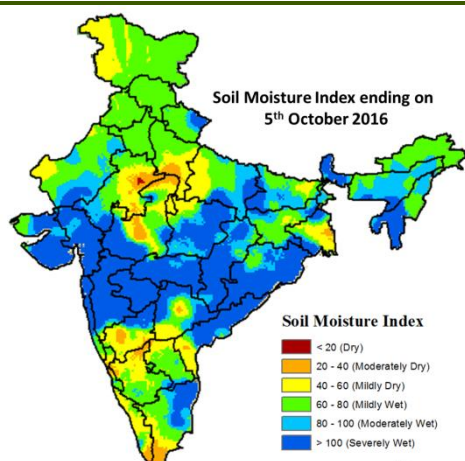
Standardised Precipitation Index Four Weekly for the Period 8th September 2016 to 5th October 2016

MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



- Extremely/severely wet conditions experienced in most districts of Telangana, many districts of Saurashtra, Kutch & Diu; Konkan & Goa; Chhattisgarh; few districts of Arunachal Pradesh, Maharashtra; Nawapara district of Odisha; Palamu, Latehar districts of Jharkhand; Araria, Aurangabad, Jahanabad, Kishanganj districts of Bihar; Sant Kabir Nagar district of Uttar Pradesh; Alirajpur, Dindori, Singrauli districts of Madhya Pradesh; Guntur district of Andhra Pradesh; Bidar, Gulbarga districts of Karnataka.
- Extremely/Severely dry conditions experienced in many districts of TamilNadu & Puducherry; few districts of Karnataka; Kerala; Jaintia Hills district of Meghalaya; Badgam district of Jammu & Kashmir; Nellore district of Andhra Pradesh and Lakshadweep.
- Moderately dry conditions experienced in few districts of Arunachal Pradesh; Jorhat, Baksa districts of Assam; West Garo Hills district of Meghalaya; West Tripura district of Tripura; North 24 Parganas, Kolkata district of West Bengal; Etah, Mainpuri districts of Uttar Pradesh; Rohtak district of Haryana; Patiala district of Punjab; Lahaul & Spiti district of Himachal Pradesh; Kupwara, Srinagar districts of Jammu & Kashmir; Dholpur district of Rajasthan; Thanjavur, Tiruvarur, Ariyalur, districts of TamilNadu; Gadag, Chikmagalur, Chitradurga, Kodagu, Mandya districts of Karnataka; Kozhikode, Kasargod, Wayanad districts of Kerala.
- Rest of the country experienced moderately wet mildly dry/mildly wet conditions.

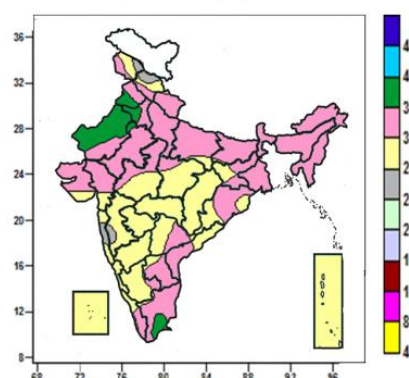
Soil Moisture Index for the week ending on 5th October 2016



- Soil Moisture Index indicates moderately dry condition in some parts of East Madhya Pradesh, Kerala, Tamil Nadu, Karnataka and Rajasthan. Mildly dry condition in some parts of Madhya Pradesh, Tamil Nadu, Rayalseema, Telangana, Uttar Pradesh, Jammu & Kashmir, West Bengal and Rajasthan. Mildly Wet condition in many parts of Rajasthan, Haryana, Jammu & Kashmir, Punjab, Himachal Pradesh and some parts of South Karnataka, and Tamil Nadu, Bihar, North-East and Uttarakhand. Rest of the country shows moderately and severely wet condition.

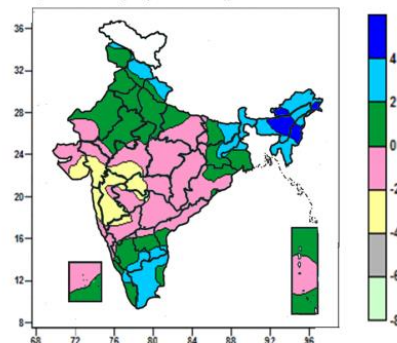
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 05.10.2016

Actual Mean Maximum Temperature (°C) in India for the week ending 05.10.2016



- Mean maximum temperature was between 36 to 40°C over many parts of West Rajasthan, some parts of Tamil Nadu, Punjab, Haryana & Delhi and isolated pockets of East Rajasthan.
- Mean maximum temperature was between 28 to 36°C over rest of the Country except some parts of Jammu & Kashmir, Himachal Pradesh, Konkan and isolated pockets of Madhya Maharashtra where it was between 24 and 28°C.

Mean Maximum Temperature (°C) Anomaly in India for the week ending 05.10.2016



- Mean maximum temperature was above normal by 4 to 6°C over many parts of Assam, Manipur, some parts of Arunachal Pradesh, Nagaland and isolated pocket of Meghalaya.
- Mean maximum temperature was above normal by 2 to 4°C over Sikkim & Sub Himalayan West Bengal, Mizoram, Tripura, many parts of Himachal Pradesh, Uttarakhand, Arunachal Pradesh, Nagaland, Meghalaya, Tamil Nadu, some parts of Bihar, Jharkhand, Gangetic West Bengal, Rayalaseema, South Interior Karnataka, Kerala and isolated pockets of Jammu & Kashmir and Coastal Andhra Pradesh.
- It was normal to near normal over rest of the country except over many parts of Konkan, Madhya Maharashtra, some parts of Gujarat, West Madhya Pradesh, Vidarbha, North Interior Karnataka and isolated pockets of Marathwada and Telangana where it was below normal by 2 to 4°C.

Actual Mean Minimum Temperature (°C) in India for the week ending 05.10.2016	Mean Minimum Temperature (°C) Anomaly in India for the week ending 05.10.2016
<ul style="list-style-type: none"> • Mean minimum temperature was between 12 to 16⁰C over some parts of Jammu & Kashmir and an isolated pocket of Himachal Pradesh. • Mean minimum temperature was between 16 to 20⁰C over some parts of Jammu & Kashmir, Himachal Pradesh, South Interior Karnataka and isolated pockets of Madhya Maharashtra, Kerala and Tamil Nadu. • Mean minimum temperature was between 20 to 28⁰C over rest of the country. 	<ul style="list-style-type: none"> • Mean minimum temperature was above normal by 4 to 6⁰C over many parts of Himachal Pradesh, Punjab, some parts of Jammu & Kashmir, Uttarakhand, Haryana & Delhi, West Uttar Pradesh and isolated pocket of West Rajasthan. • Mean minimum temperature was above normal by 2 to 4⁰C over Sikkim & Sub Himalayan West Bengal, Nagaland, many parts of Uttar Pradesh, Bihar, Arunachal Pradesh, Manipur, Rajasthan, Jharkhand, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Assam, Gangetic West Bengal, Mizoram, Madhya Pradesh and isolated pockets of Gujarat Region. • Mean minimum temperature was normal to near normal over rest of the country.

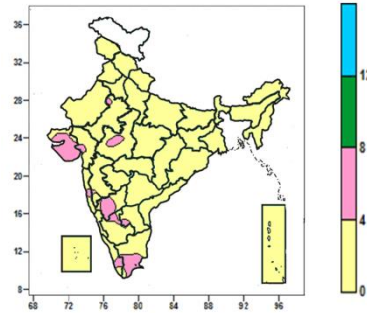
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 05.10.2016	
Relative Humidity (%) over India for the week ending 05.10.2016	Cloud amount (okta) over India for the week ending 05.10.2016
<ul style="list-style-type: none"> • Mean Relative Humidity was above 80% over Sikkim, Nagaland, Konkan & Goa, Chhattisgarh, Lakshadweep, Andaman & Nicobar Islands, many parts of Arunachal Pradesh, Assam & Meghalaya, Manipur, West Bengal, Bihar, Jharkhand, East Madhya Pradesh, Odisha, Madhya Maharashtra, Marathwada, Vidarbha, Coastal Karnataka, some parts of Himachal Pradesh, East Uttar Pradesh, Saurashtra & Kutch, West Madhya Pradesh, Coastal Andhra Pradesh, North Interior Karnataka, Kerala 	<ul style="list-style-type: none"> • Sky remained overcast (8 okta) over some parts of Konkan & Andaman & Nicobar Islands and isolated pockets of Madhya Maharashtra. • Sky remained generally cloudy (5-7 okta) over rest of the country except over Jammu & Kashmir, Punjab, Haryana & Delhi, Uttar Pradesh, Bihar, Assam, Nagaland, Tripura, Rajasthan, many parts of Himachal Pradesh, Uttarakhand, West Bengal, Arunachal Pradesh, Madhya Pradesh, Jharkhand, Odisha, West Bengal, Gujarat, South Interior

and isolated pockets of Jammu & Kashmir, Gujarat Region.

- Mean Relative Humidity was between 60 to 80% over rest of the country except some parts of Tamil Nadu and isolated pockets of Rajasthan where it was between 40 to 60%.

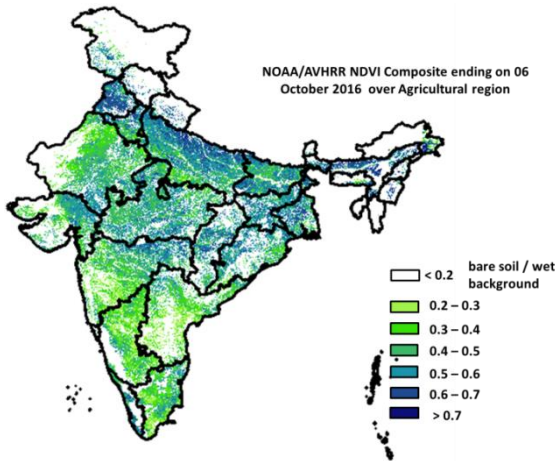
Karnataka, some parts of Madhya Maharashtra, Marathwada, North Interior Karnataka, Rayalaseema, Lakshadweep, Kerala, Tamil Nadu, Andaman & Nicobar Islands and isolated pockets of Sikkim, Vidarbha, Telangana and Coastal Karnataka where it was partly cloudy/mainly clear sky (3-4/1-2 okta).

Wind speed (knots) over India for the week ending 05.10.2016



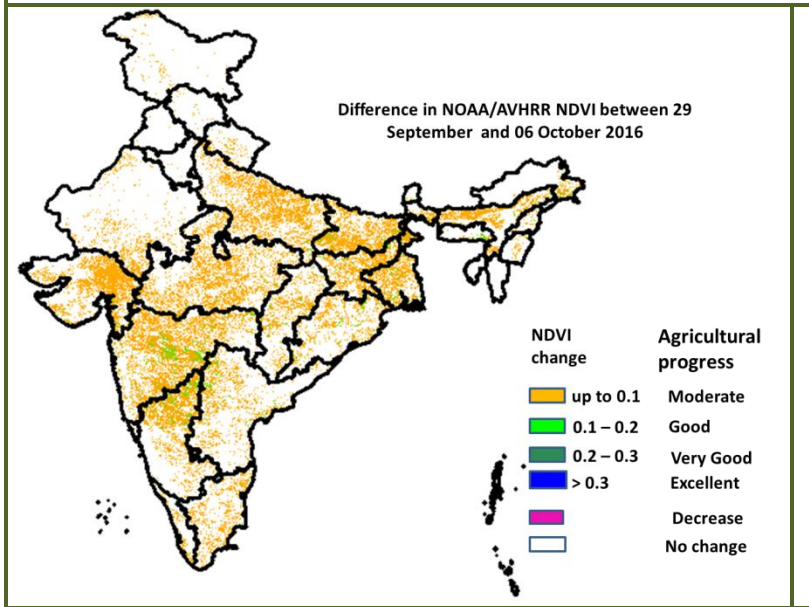
- Mean wind speed was between 0 to 4 knots over the country except many parts of Saurashtra & Kutch, some parts of West Madhya Pradesh, Konkan, Interior Karnataka, Kerala, Tamil Nadu and isolated pockets of East Rajasthan, Gujarat Region, Madhya Maharashtra and Rayalaseema where it was between 4 to 8 knots.

NOAA/AVHRR NDVI composite ending on 6th October 2016 over Agricultural region of India



- Agricultural vigour is very good in Punjab, Haryana, patches in Uttar Pradesh, patches in M.P, Bihar, Odisha, West Bengal, Vidharbha region and North-east where NDVI value are > 0.7, Agriculture vigour is good in Kerala, north Tamil Nadu, north Andhra Pradesh, Uttar Pradesh, Haryana, parts of east Bihar, east Rajasthan, Gujarat, NDVI varies from 0.5 to 0.7. NDVI is moderate in west Rajasthan, Telangana, Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra (NDVI 0.3 to 0.5).

Difference in NOAA/AVHRR NDVI between 29th September and 6th October 2016



- Good progress is observed in patches in Maharashtra and Karnataka where, NDVI change ranges from 0.1-0.2. Moderate progress in NDVI was observed in Gujarat, patches in Rajasthan, Karnataka, Uttar Pradesh, Madhya Pradesh, Bihar, West Bengal, Andhra Pradesh and Tamil Nadu.

- NOAA/AVHRR NDVI composite maps for the week ending on 6th October 2016 for different States are given in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 12th October 2016

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.

5 Day Rainfall Forecast (mid day) 7th October 2016

Met-Sub-Division

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

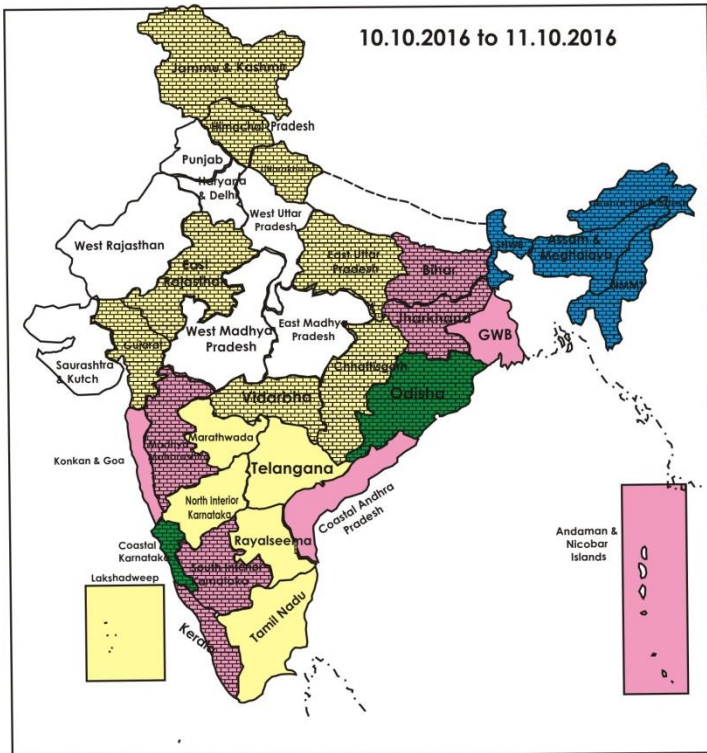
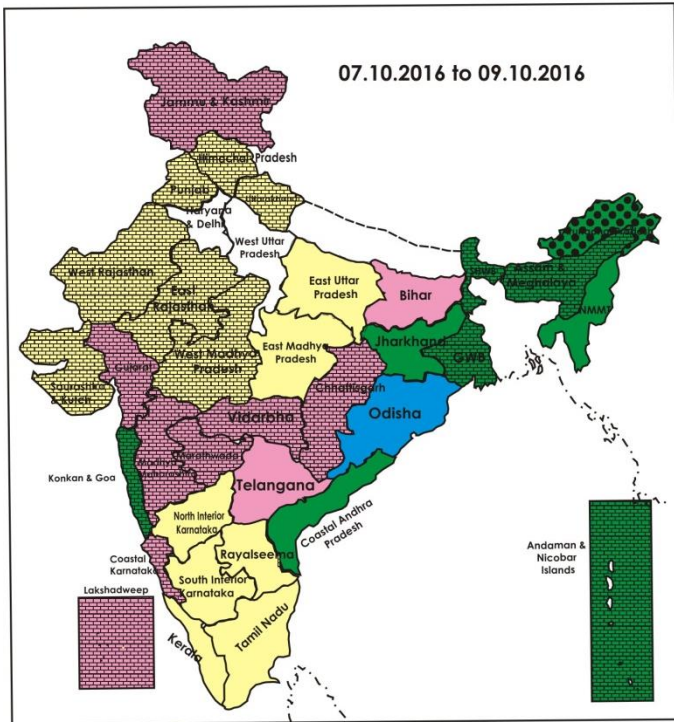
Weather Warning during next 5 days

- **07 October (Day 1):**◆ Heavy rain at isolated places very likely over coastal Odisha and Gangetic West Bengal.
- **08 October (Day 2):**◆ Heavy rain at isolated places very likely over Assam & Meghalaya and Odisha.
- **09 October (Day 3):**◆ No warning.
- **10 October (Day 4):** ◆ Heavy rain at isolated places very likely over Sub Himalayan West Bengal & Sikkim, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- **11 October (Day 5):**◆ Heavy to very heavy rain at isolated places very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura; heavy at Arunachal Pradesh and SubHimalayan West Bengal & Sikkim.

Weather Outlook for subsequent 2 days from 12th to 14th October 2016

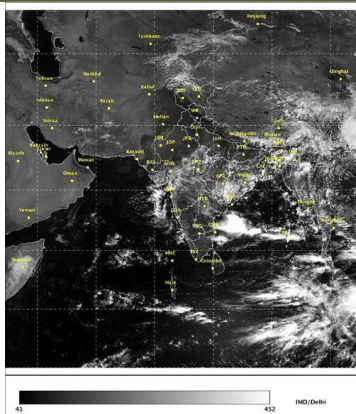
- Rain at many places very likely over Northeast, East and adjoining Central & Peninsular India.
- Rain at a few places very likely along West Coast and over Andaman & Nicobar Islands.
- Rain at isolated places very likely over Central India.

Weather Forecast Map (valid upto 0830 hours 12th October 2016)



- Most places
- Most/Few places/Dry
- Most/ Few places
- Most / Many places
- Most/Many / Isolated places
- Most / Isolated places
- Most / Many/ Few places
- Most / Few / Isolated places
- Most/Many places/ Dry
- Most / Isolated places/ Dry
- Many places
- Many / Few places
- Many / Isolated places
- Many / Few / Isolated places
- Many / Few places/ Dry
- Many / Isolated places/Dry
- Many places/ Dry
- Few places
- Few / Isolated places
- Few/ Isolated places/Dry
- Few places/Dry
- Isolated places
- Isolated places/ Dry
- Dry

Satellite image dated, 07.10.2016, 0600 UTC



Salient Advisories

- As rain/thundershowers likely at **most/many places** over Assam & Meghalaya from 8th to 11th and over Nagaland, Manipur, Mizoram and Tripura during the period, over Arunachal Pradesh from 9th to 11th and over Odisha from 7th to 10th, at **many places** over Coastal Andhra Pradesh from 7th to 9th, over Coastal Karnataka on 11th, over Konkan & Goa on 8th & 9th, over Sub-Himalayan West Bengal & Sikkim from 8th to 11th Oct., over Andaman & Nicobar Islands and Gangetic West Bengal on 7th and over Jharkhand from 7th to 9th Oct., do not apply irrigation, application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safer places and undertake rain water harvesting for ensuing rabi crops.
- As **heavy rain** very likely at isolated places over Coastal Odisha and Gangetic West Bengal on 7th, over Odisha on 8th, over Arunachal Pradesh on 11th and over Sub-Himalayan West Bengal & Sikkim on 10th & 11th, **heavy/heavy to very heavy rain** very likely at isolated places over Assam & Meghalaya on 8th, 10th & 11th and over Nagaland, Manipur, Mizoram and Tripura on 10th & 11th Oct., provide adequate drainage in standing crop fields to avoid water stagnation.
- Utilizing the realised/expected rainfall, undertake land preparation and sowing of toria, rapeseed and mustard in **Assam, Bihar** and **Chhattisgarh** and sowing of rainfed mustard in **Odisha**. Undertake sowing of mustard and Bengal gram in **North Saurashtra** and **North Gujarat**. Continue sowing of rabi jowar, safflower and gram (rainfed) in **Madhya Maharashtra** and **Marathwada**.
- As mainly dry weather would prevail, undertake harvesting of soybean, sesame and bajra in **North Interior Karnataka**, continue harvesting of *virippu* rice in **Kerala**, soybean and pulses in **Madhya Pradesh** and **Chhattisgarh**, groundnut, black gram, green gram, sesame and soybean in **South Saurashtra** and **North Gujarat** and pulses in **South Gujarat**, harvesting of pearl millet, moong, moth bean in **west Rajasthan** and undertake harvesting of matured rice in **Jammu & Kashmir** and **Uttarakhand**.
- **In North Coastal Andhra Pradesh**, continue harvesting groundnut, mesta and ragi after current spells of rain.
- In view of the prevailing/expected mainly dry weather conditions in the following Sub divisions, farmers are advised to:
 - apply protective irrigation to groundnut, ragi, maize and red gram as per requirement in Bengaluru, Rural, Bengaluru Urban, Ramnagara, Chikaballapura and Kolar districts of **South Interior Karnataka**.
 - maintain 5-7 cm water level in rice at grain filling stage and stop irrigation two weeks before harvesting in Gurudaspur, Fazilka, Ferozepur and Faridkot districts of **Punjab**. To avoid shedding of flowers and bolls, apply irrigation and maintain optimum moisture in cotton crop during flowering and boll formation stages. Also apply irrigation in maize at cob formation stage.

Detailed Zonewise Agromet Advisories

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



Banana



Rice



Sugarcane



Red gram

- **Realised Rainfall:** Rainfall occurred in East Godavari, Guntur, Krishna, Srikakulam, Vishakhapatnam, Vizianagaram and West Godavari districts of Coastal Andhra Pradesh; Chittoor district of Rayalseema ; Adilabad, Hyderabad, Khammam, Medak, Nalgonda and Nizamabad districts of Telangana; Alappuzha, Idukki and Pathanamthitta districts of Kerala; Ariyalur, Chennai, Cuddalore, Kancheepuram, Karaikal, Perambalur, Puducherry, Thanjavur, Tiruvallur, Thiruvannamalai, Thiruvarur, Trichy, Vellore and Villupuram districts of Tamil Nadu; in Bidar district of North Interior Karnataka. Weather remained mainly dry over rest of the region.

➤ **Advisories:**

- As rain/thundershowers likely at many places over Coastal Andhra Pradesh from 7th to 9th and over Coastal Karnataka on 11th Oct., do not apply irrigation, application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safe places.

▪ **Kerala :**

- In North and Central Zone, continue harvesting of matured *Viruppu* rice. Undertake field preparation for nursery sowing of *Mundakan* rice.
- In Idukki and Wynad districts of High Altitude Zone, undertake land preparation for sowing of Bhindi, Amaranthus and planting Banana and undertake harvesting of cardamom.
- In Central Zone, prevailing weather is congenial for bud rot disease in coconut. Cut and remove all the affected tissues of the crown. Apply Bordeaux paste and protect it from rain till normal shoot emergence also there is chance of rhizome rot on Ginger and Turmeric, to control this dig out the affected plants and undertake spraying of Kocide @ 2gm/ per litre of water. In Thiruvananthapuram district, undertake spraying of Copper oxy Chloride @ 4g per liter of water on new sprouts of newly planted Rubber plants.
- In Thiruvananthapuram district, to control fugal disease on tapping panels of rubber plants, undertake spraying of Indofil M 45 @ 4g per liter of water.

▪ **Andhra Pradesh:**

- In North Coastal Zone, continue harvesting groundnut, mesta and ragi after current spells of rain. Undertake sowing of maize.
- In Krishna Godavari Zone, due to water logging white mite on Sugarcane may dominate and infest the crop. Undertake spraying of Malathion @ 3 ml per liter of water Undertake plant protection methods of after current spells of rain.
- In Southern Zone, undertake nursery sowing of rice and land preparation for sowing of *Rabi* red gram.
- In Rayalaseema, continue land preparation and sowing of Bengal gram in Black soils in Ananthapuram District. In Anantapuram and Chittoor districts, in fallow lands, undertake sowing of Horse gram and fodder crops. Continue harvesting of groundnut, Bajra and Korra.
- In Scarce Rainfall Zone of Rayalaseema, incidences of stem borer and BPH was observed in rice crop in some parts. To control stem borer, undertake spraying of Chloropyriphos @ 2.5ml or Acephate @ 1.5gms or Cartap Hydrochloride @ 2g per liter of water and for control of BPH, undertake spraying of Applaud (Buprofezin) @ 330 ml per acre and spraying should be directed to the base of the crop.

▪ **Telangana:**

- In Northern Telangana Zone, continue sowing of Groundnut (varieties K6, JL 24, JCG 88) at optimum soil moisture conditions.
- In North Telangana Zone, prevailing weather conditions are congenial for the incidence of Phytophthora Blight in red gram. If noticed, spray Mancozeb @ 2g per litre of water on a non rainy day 2 times in 10 days interval for control.
- In Mahabubnagar, Nalgonda, Medak, Rangareddy, Khammam and Warangal districts (South Telangana Zone), prevailing weather conditions are congenial for the incidence of leaf spot on cotton. To control, spray Copper-

Oxy-Chloride @ 30 g and Plantomycin @ 2 g in 10 liters of water also prevailing weather conditions are congenial for gray mold incidence on castor, to control, spray Carbendazim @ 1g or Propiconazole @ 1 ml per litre of water.

▪ **Tamil Nadu:**

- In Ariyalur, Perambalur, Thanjavur, Thiruvarur and Trichy districts of Cauvery Delta Zone, continue land preparation for nursery sowing of Late samba/Thaladi season rice (varieties ADT 38, ADT 46, ADT 49, improved white Ponni, TRY 3 and TKM 13). Continue harvesting of matured *Kuruvai* rice. Continue transplanting of Samba rice.
- In Coimbatore, Tiruppur, Erode districts of Western Zone, continue land preparation for sowing of millets like Cumbu, Sorghum and Ragi.
- In Southern Zone (Kanniwadi), continue transplanting of *Samba Rice*.
- In Karaikal & Puducherry, continue sowing of medium duration rice varieties like TKM 13, CO (R) 50, ADT 38, ADT 39, CO 46, TRY 3 and White Ponni.
- In Thoothukudi, Virudhunagar and Tirunelveli districts of South Zone, for sowing during the ensuing northeast monsoon season under rainfed conditions, select drought tolerant and pest and disease resistant varieties of cotton (KC 3 and PA 255), maize (CoH(M) 6), sorghum (K 8 and K12), green gram (CO 6), sunflower (CO 4), pearl millet (CO [Cu] 9), gingelly (TMV 5), coriander (CO 4) and senna (KKM 1) and continue main field and nursery bed preparation under dryland conditions for raising rainfed crops during the ensuing northeast monsoon season.
- In North Western Zone, continue land preparation for sowing of short duration (60-65 days) varieties of black gram (Co-6), Vamban-6,8, green gram variety Co-8, red gram varieties Co-7 (125 days), VBN -3 (105 days).
- In Kanniyakumari district of High Rainfall Zone, apply irrigation to the newly planted banana, mango, nutmeg, clove, pepper and rubber plants.
- In Nilgiri district of High Altitude Hilly Zone, to control trips in garlic spray Dimethoate @ 1.5 ml per litre of water.
- In Cauvery Delta Zone, due to prevailing weather condition Leaf mite incidence is been noticed in the Samba paddy fields. To manage this, undertake spraying of Dicofol @ 600 ml per acre or wettable Sulphur @ 400 gm per acre with 200 litre of water.

▪ **Karnataka:**

- In Bidar district of North East Transition Zone, undertake sowing of Bengal gram, continue sowing of sorghum, safflower, niger under optimum soil moisture condition. Complete harvesting of matured soybean in clear weather.
- Maintain 3-5 cm water level in rice in Chamrajnagar, Mandya, Kodagu and Mysuru districts of Southern Dry Zone. If water scarcity is there, apply irrigation to sugarcane crop in alternate rows once in 10 days. Continue sowing of minor millets like Foxtail millet, Kodo millet, prosomillet, ragi, jowar, maize and pulses like Avare, cowpea etc with available soil moisture in Kodagu district and in Chamrajnagar, Mandya and Mysuru districts after receipt of sufficient rainfall.
- Continue sowing of sunflower, *rabi* sorghum, safflower and chickpea after receipt sufficient rainfall in Vijayapura, Bagalkote and Gadag districts of North Dry Zone. Intercropping of *rabi* sorghum + chickpea (2: 1 row proportion), chickpea + safflower (4:2 row proportion) is recommended. Give preference to sowing of fodder crops.
- Continue sowing of Bengal gram (JG-11) in Raichur, Kalaburgi, Ballari, Yadgir, Koppal districts of North East Dry Zone with available soil moisture. Continue harvesting of matured sesame and bajra in clear weather; keep harvested produce at safer place. Due to rains during previous weeks, flower drop in cotton, red gram and yellowing of leaves in cotton, red gram, maize and sunflower crops is noticed; spray 19:19:19 @ 5 g and Planofix @ 0.25 ml dissolved in one litre of water.
- Maintain optimum water level in rice in Coastal Zone and Southern Transition Zone.
- In Bengaluru, Rural, Bengaluru Urban, Ramnagara, Chikaballapura and Kolar districts of Eastern Dry Zone, undertake sowing of short duration varieties of ragi and short duration crops like cowpea, foxtail millet and field bean under sufficient moisture condition. Provide protective irrigation to groundnut, ragi, maize and red gram or spray 2 % KCL (MOP) to overcome moisture stress. Also undertake intercultural operation in maize and apply residue mulch by using the residues of weeds, gliricidia and other green manure crops.
- Continue sowing of *rabi* sorghum, safflower and chickpea and land preparation for sowing of wheat in Dharwad, Belagavi and Haveri districts of North Transition Zone. Complete harvesting of soybean. Apply irrigation in sorghum (grain filling to hardening stage), sugarcane (in alternate rows) and maize as per requirement.
- Due to cloudy weather there is chance of blast disease in rice crop in Chamrajnagar, Mandya and Mysuru districts of Southern Dry Zone; to manage, spray Bavistine @ 1 g per litre of water Or Tricycloval @ 0.6 g/ litre of water.

- Incidence of Brown plant hopper is noticed in rice crop in Raichur, Kalaburgi, Ballari, Yadgir, Koppal districts of North East Dry Zone; to control, spray Chloropyriphos @ 2.0 ml or Monocrotophos @ 1.5 ml dissolved in one litre of water.
- In short duration pigeon pea crop (flowering stage) in North East Transition Zone, pod borer are noticed in the crop, spray Profenophos @ 2 ml or Thiodicarb 0.6 g or Methomyl 0.6 g per litre of water for control.
- **Animal Husbandry**
- In the Southern Zone and North Eastern Zones of Tamil Nadu, vaccinate dairy animals and cattle against hemorrhagic septicaemia & black quarter.
- In Telangana, prevailing weather conditions are congenial for the occurrence of Ranikhet disease in poultry, ET, sheep pox, Hemorrhagic Septicemia in Cattle, Buffaloes and Black Quarter in Cattle. To prevent the diseases, vaccinate the poultry and animals.

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



Banana



Rice



Groundnut



Khasi mandarin

- **Realised Rainfall:** Rainfall occurred in Cachar, Hailakandi, Karimganj and Morigaon districts of Assam; East Khasi Hills district of Meghalaya; Aizwal, Lunglei and Saiha districts of Mizoram; Imphal West district of Manipur; Kephire and Wokha districts of Nagaland and Dhalai and South Tripura districts of Tripura. Weather remained mainly dry over rest of the region.
- **Advisories:**
- As rain/thundershowers likely at most/many places over Assam & Meghalaya from 8th to 11th, over Nagaland, Manipur, Mizoram and Tripura during the period and over Arunachal Pradesh from 9th to 11th Oct., do not apply irrigation, application of plant protection measures and fertilizers to the standing crops. Keep harvested produce at safe places.
- As heavy / heavy to very heavy rain very likely at isolated places over Assam & Meghalaya on 8th, 10th & 11th, over Nagaland, Manipur, Mizoram and Tripura on 10th & 11th and over Arunachal Pradesh on 11th Oct., provide adequate drainage in crop fields to avoid water stagnation.
- **Assam, Meghalaya & Arunachal Pradesh:**
- In Assam, repair the bunds to conserve rainwater in the rice fields and maintain a depth of 3 to 5 cm of water level in the rice fields at panicle initiation stage.
- In Dhemaji, Lakhimpur, Sonitpur, Dibrugarh, Golghat, Jorhat and Sibsagar districts of Upper Bramhaputra Valley Zone of Assam, continue nursery sowing of early cauliflower, radish, brinjal and land preparation for planting of potato. Undertake land preparation for sowing of toria.
- In Karimganj, Hailakandi and Cachar districts of Barak Valley Zone of Assam, continue nursery raising for winter vegetables. Undertake land preparation for sowing of rapeseed/ mustard and planting of potato.
- In Karbi Anglong and NC Hills districts of Hill Zone of Assam, continue nursery raising of winter vegetables and transplanting of early cauliflower and sowing of onion.
- In Marigaon and Nagaon districts of Central Bramhaputra Valley Zone of Assam, continue sowing of rabi pulses and oil seeds, nursery sowing of brinjal, cole crops and early radish.
- In Barpeta, Bongaigaoin, Dhubri and Goalpara districts of Lower Bramhaputra Valley Zone of Assam, continue sowing of pumpkin, radish, onion and planting of early potato.
- In North Bank Plain Zone of Assam, continue sowing of Knol-khol and nursery sowing of brinjal and tomato. Farmers are advised to collect the recommended varieties of potato for sowing.
- In Meghalaya, continue nursery sowing/ transplanting of cauliflower/ cabbage/ broccoli.
- In Arunachal Pradesh, continue nursery sowing of winter vegetables. Complete sowing of black gram and green gram in rice fallow of *jhum* fields. Undertake sowing of pea.
- In Arunachal Pradesh, there is chance of attack of shoot grab at citrus at fruiting stage. Incorporate Clothianidin 50 WDG @ 4gm/plant in base region of the plant against shoot grab.
- In Meghalaya, to prevent leaf spot disease in ginger/ turmeric, apply Mancozeb @ 1.5 g/litre of water at 15 days interval. Also spray/ drench 1% Bordeaux mixture or Dithane M-45 (2.5g/litre) to prevent rhizome rot in ginger / turmeric. Apply Flubendiamide 480SC @ 20ml 100l of water for 1 acre against stem borer. Undertake plant protection methods after current spells of rain.
- In Central Bramhaputra Valley Zone of Assam, due to prevailing weather conditions, there is chance of attack of leaf folder, aphid in black gram and green gram fields. Spray Quinalphos @ 2.5 ml/litre of water or Dimethoate

@ 2ml/litre of water after current spells of rain.

- In Hill Zone and Lower Bramhapurtra Valley Zone of Assam, to control pod borer, aphids, jassids, flea beetle and leaf roller on pigeon pea at vegetative stage, spray Malathion 50 EC @ 1.0-1.5litre or Fenitrothion @ 1.0-1.5litre mixed in 500-700 litre of water/ha after current spells of rain.
- In Lower Bramhapurtra Valley Zone of Assam, to control case worm in Sali rice, spray 0.04% Monocrotophos 40 EC or 0.025% Quinalphos 25 EC after current spells of rain.
- In North Bank Plain Zone of Assam, there is chance of attack of leaf folder and stem-borer in Sali rice. Spray 0.02% Chloropyriphos 20 EC or Quinalphos 25 EC @ 2.5ml per litre of water to control the pests after current spells of rain.

▪ **Nagaland, Manipur, Mizoram and Tripura:**

- In Nagaland, continue harvesting of *Jhum* rice and soybean after current spells of rain and continue land preparation for sowing of toria and rabi maize. Also continue nursery preparation for winter vegetables like cabbage, cauliflower, knol-khol, broccoli, radish, tomato.
- In Manipur, continue nursery raising for rabi vegetables and early sowing of garden pea and undertake land preparation for nursery raising of cole crops/onion.
- In Mizoram, continue harvesting of *khasi* mandarin/acid lime, passion fruit, banana and nursery raising of early cole crops. Continue sowing of green gram, black gram and French bean.
- In Tripura, undertake land preparation for planting of potato and transplanting of early winter vegetables such as cabbage, radish, brinjal etc. Continue harvesting of *jhum* rice after current spells of rain.
- In Nagaland, spray Streptocycline 2gm/5litre of water against bacterial blight in TRC/ WRC rice.
- In Manipur, to control aphid disease in main *kharif* rice, spray Fipronil @ 2g/15 litre water or Imidachloprid 17.8 SL @ 7ml/ 15litre of water after current spells of rain.
- In Mizoram, apply insecticide like Imidacloprid 0.5 ml or Phosolone 1.5 ml or Acephate 1.0 g or Dimethoate 2 ml/litre of water against turmeric shoot borer disease in ginger/ turmeric after current spells of rain.
- In Tripura, due to increase in humidity there is chance of blast on *aman* rice at flowering stage. Spray Benlate or Mancozeb @ 0.25% after current spells of rain.
- Suitable varieties for sowing are given in Annexure III.

• **Animal Husbandry**

- In Assam, undertake vaccination of cattle and goat against BQ, HS, Foot and mouth disease as well as anthrax disease. They should not be fed with water-submerged rotten grass. Vaccination (RDF1) against Ranikhet disease in one week old chicks and against Gamboro disease in two weeks old chicks may be carried out.
- In Tripura, the present weather condition is favorable for infestation of round worm, flukes and tapeworms in cattle. De-worming may be done under recommendation and supervision of authorized practitioner.

• **Fishery**

- In Barak Valley Zone of Assam, provide fish feed regularly in fish ponds for better growth and development of the fishes. Locally available fish feed like rice bran and mustard cake in ratio of 1: 1 can be given @ 2% of the body weight with mineral mixture which prevent the fishes from various diseases.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Maize



Groundnut



Rice



Green gram

- **Realised Rainfall** Rainfall occurred in all districts of Konkan & Goa except North Goa, South Goa, and Sindhudurg districts; in all districts of Madhya Maharashtra except Sangli, Kolhapur districts; in all districts of Marathwada, in all districts of Vidarbha except Nagpur district; in all districts of Gujarat Region except Ahmedabad, Gandhinagar, Navsari and Sabarkantha districts, in all districts of Saurashtra & Kutch except Gir Somnath and Surendranagar districts. Weather remained mainly dry over rest of the region.

➤ **Advisories:**

➤ **Maharashtra:**

- As rain/thundershowers likely at many places over Konkan & Goa on 8th & 9th Oct., do not apply irrigation, plant protection measures and fertilizers to the standing crops. Keep harvested produce at safe places.
- In Konkan, maintain water level of 8-10 cm in rice fields (grain filling stage) by bunding the fields. Continue nursery preparation for winter vegetables.
- In Madhya Maharashtra, continue harvesting of matured bajra and soybean in clear weather and keep the

harvested produce in safer place. Continue sowing of rabi jowar, gram and safflower. Maintain water level of 8-10 cm in transplanted rice fields (grain filling stage) in Western Ghat Region.

- In Marathwada, continue harvesting of matured bajra and soybean. Continue sowing of *rabi* jowar, safflower and gram (rainfed).
- In Vidarbha, maintain 8-10 cm water level in transplanted rice fields (flowering/ grain filling stage) in Nagpur, Bhandara, Gondia, Chandrapur and Gadchiroli districts. Continue sowing of Bengal gram and safflower. Continue harvesting of matured soybean.
- Due to rainfall and cloudy weather condition in Marathwada region, there may be incidence of fungal blight on onion, spray Mancozeb @30 g or Chlorothalonil or Copper Oxochloride @25 g or Carbendazim @5 g + Mancozeb 25 gm per 10 litres of water.
- Due to humid and cloudy weather conditions in Western Maharashtra Scarcity zone, there may be attack of thrips, white flies and aphids on cotton, spray Acetamiprid 20 S.P. @4 g or Triazophos @25 ml per 10 litres of water.
- **Gujarat:**
- In Rajkot, Amreli, Jamnagar and Surendranagar districts of North Saurashtra Zone, undertake sowing of mustard, gram and garlic at optimum soil moisture conditions and harvesting of groundnut and picking of cotton in clear weather. Continue harvesting of crops like groundnut, black gram, mung bean, soybean and sesame in South Saurashtra Zone.
- In South Gujarat Heavy Rainfall Zone, continue harvesting of matured pulses and rice in clear weather; keep the already harvested produce at safer place to avoid spoilage due to rain. Undertake land preparation for sowing of *rabi* pulses and other *rabi* crops after harvesting of pulses and rice. Continue planting of sugarcane.
- In Kutch district of North West Zone and North Gujarat Zone, undertake sowing of *rabi* mustard, gram and fennel; Continue harvesting of groundnut, bajra, green gram, cowpea, sesame; In South Gujarat Zone, continue land preparation for sowing of sorghum, nursery preparation of *rabi* vegetable crops like chilli, tomato and brinjal.
- Due to high humidity condition there is chance of Alternaria blight in chilli in Middle Gujarat Zone; for control, spray Tridimorf (80 % EC) @ 5 ml in 10 litres of water on a non rainy day.
- Due to prevailing weather conditions there is chance of infestation of pink boll worm in cotton in North Saurashtra Zone; install 5 pheromone traps/acre for monitoring of pest; for control, spray Acephate 75 % SP @ 15 g and Abamectin 10 ml / 10 litres of water.
- Due to cloudy weather condition there is chance of castor semilooper in castor in South Saurashtra Zone; if noticed, spray 20 ml Quinalphos (1.5% powder) or Carbaryl @ 40 g in 10 litres of water for control.
- **Animal Husbandry**
- Farmers are advised to vaccinate the cattles to protect them from foot and mouth disease in Maharashtra.
- Spray phenyl in the animal shed to avoid flies and mosquitoes in Gujarat State.

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



Red gram



Okra



Maize



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Andaman & Nicobar Islands, Cooch Bihar & Jalpaiguri districts of Sub-Himalayan West Bengal, North & South Sikkim of Sikkim districts, South 24 Pargana district of Gangetic West Bengal; in all districts of Odisha except Bargarh, Boudhgarh, Jharsuguda, Keonjhar, Malkangiri, Sambalpur, Sonepur and Sundargarh; Chatra, Dumka, Garhwa, Hazaribagh and Pakur districts of Jharkhand. Weather remained mainly dry over rest of the region.
- **Advisories:**
- As rain/thundershowers likely at most/many places over Sub-Himalayan West Bengal & Sikkim from 8th to 11th, over Andaman & Nicobar Islands and Gangetic West Bengal on 7th, over Odisha from 7th to 10th and over Jharkhand from 7th to 9th Oct., do not apply irrigation, plant protection measures and fertilizers to the standing crops. Keep harvested produce at safe places and undertake rain water harvesting.
- As heavy rain very likely at isolated places over Coastal Odisha and Gangetic West Bengal on 7th, over Odisha on

8th and over Sub-Himalayan West Bengal & Sikkim on 10th & 11th Oct., provide adequate drainage in standing crop fields.

▪ **Odisha:**

- In East and South Eastern Coastal Plain Zone, undertake land preparation for sowing of rainfed mustard (varieties like Parbhathi, Anuradha, TS-29 & M-27), groundnut and sesame. Continue nursery raising of cole crops such as cabbage and cauliflower for early planting.. Early sown kharif groundnut crop is at maturity stage. Go for harvesting the groundnut crop. Make them bundles. Keep the bundles in such a way that the pods will remain up side and the plants down under sun for drying of pods and thresh them.
- In Mayurbhanj and Keonjhar districts, undertake sowing of green pea in fallow uplands. Grow High Yielding varieties such as Rachana, Arkel. and T -163. Use 30 kg seeds/acre and continue nursery raising of tomato, cauliflower and cabbage.
- In Malkangiri district of South Eastern Ghat Zone, due to the high humidity and cloudy weather, there is chance of bacterial leaf blight in Kharif Rice, spray Streptocycline 1 g along with 20 g Copper oxy chloride in 10 litres of water after current spells of rain.
- In North Eastern Coastal Plain Zone, prevailing cloudy weather with high humidity will increase the incidence of blast and sheath blight of Kharif Rice. To control it spray Tebuconazole+Trifloxystrobin 75WG@200g/ha in 500 litres of water after current spells of rain.
- In Kalahandi and Nuapara districts of Western Undulating Zone, sucking pests like aphids, jassids infestation may occur on cotton crop at square formation to flowering stage. Spray Buprofezin 2ml/litre water for controlling sucking pests.
- In North Central Plateau Zone, if Helicoverpa infestation has been found in maize, spray 100 L.E. NPV during morning and evening hours. If stem borer attack is noticed, apply 1 g Furadan in the leaf whorl or spray 2 ml Chloropyriphos or 1.5 ml Phosphamidon in 1 litre of water and repeat the spraying after 15 days of first spraying.
- In North Central Plateau Zone, due to the high humidity and cloudy weather there is chance of bacterial leaf blight in rice, spray the crop with 1 g Plantomycin along with 2 g Copper oxychloride in one litre of water. To control stem borer, swarming caterpillar, case worm and hispa in rice apply Chlorpyriphos 20% EC @ 2 ml/ litre of water or Triazophos 40% EC @ 2 ml/litre of water after current spells of rain.
- In East and South Eastern Coastal Plain Zone, stem borer infestation and Bacterial Leaf Blight is noticed in rice. Spray Tryzophos or Chloropyriphos @ 2 ml per litre water to control Stem borer. For control of Bacterial Leaf Blight, spray 200 g Plantomycin in 200 litres of water per acre. Also high humidity, low temperature and cloudy weather favours the infestation of blast in rice. Spray 1 g Beam and 1.5 g Hinosan in 2 litres of water twice at 15 days interval. Undertake plant protection measures after current spells of rain.

▪ **West Bengal**

- In Burdwan, Murshidabad, Nadia, North 24 Parganas districts of New Alluvial Zone, continue nursery sowing of onion, cabbage, cauliflower. Keep 5-7cm water in the rice fields at panicle initiation/flowering stage.
- In Kharagpur, Birbhum, West Midnapore districts, drain out water from the rice fields 7-10 days before harvesting of the crop and undertake harvesting the matured rice crop in clear weather.
- In Darjeeling district of Hill Zone, complete harvesting of large cardamom and round chilli. Care should be taken to prevent water stagnation in the fields of ginger and turmeric.
- In Hill Zone, due to high humidity, yellow stem borer and blast disease may be found in rice. Spray Azadirachtin 0.03% (300PPM) neem oil based WSP @ 2000 g/ha in 1000 litre of water to control stem borer and spray tricyclazole 75% WP @ 0.5 g/litre of water on a non rainy day to control blast disease.
- In New Alluvial Zone, in the present weather condition, in this weather situation, infestation of collar rot may occur in betel vine. Apply 1 % Bordo-mixture or blitox- 50 or Phytolan 4 gm per litre of water on a non rainy day.
- In Coastal Saline Zone of West Bengal, in the present weather condition green leaf hopper and leaf eating caterpillar attack may be found in Aman rice and black gram. For control of green leaf hopper, spray Acephate@1g/liter of water, Use light trap during night and for leaf eating caterpillar attack, Spray Chlorpyrifos@1.5ml/lit of water on a non rainy day.
- In Laterite and Red Soil Zone, in the prevailing weather condition, Gundhi bug attack may be found in rice at milky stage. Spray Neem oil @ 5ml/litre of water during early hours of the day at clear weather condition.
- In Old Alluvial Zone, under the present weather condition, neck blast disease may be found in rice, to control, spray Ediphenphos 50% E.C. @ 1ml /liter of water on a non rainy day.

▪ **Andaman and Nicobar Islands:**

- In North, South and Middle Andaman, apply 25 kg/ha neem coated urea during end of the week in rice field and setup light traps to attract borers moth during night time. Apply neem oil @ 30 ml/lit of water along with teepol @ 0.5 ml/lit after onset of fruit to control pod borer in beans.
- In Nicobar, prepare raised nursery bed of vegetables in well drained areas and sow the seeds of brinjal (400 to 500 g) for transplanting in one hectare area.

▪ **Bihar**

- In Araria, Katihar, Kishanganj, Madhepura, Purnea, Saharsa and Supaul districts in North East Alluvial Zone, continue sowing of rabi Arhar. Before sowing seeds must be treated with Carbendizin @ 2g/kg of seed. Maintain 5 cm standing water in rice fields. Continue harvesting of matured kharif maize crop.
- In Darbhanga, East Champaran, Gopalganj, Samastipur, West Champaran districts of North West Alluvial Plain Zone, continue land preparation for sowing of mustard, rapeseed, sunflower, lentil, pea, rajma and garlic. Undertake wedding in vegetables such as chilli, cauliflower, brinjal, kharif onion, bhindi, pumpkin, sponge guard and cucumber.
- In North West Alluvial Zone, in present weather condition, Gundhi bug infestation may be found in rice at milking stage. Apply Folidol dust@10-15 kg per hectare.
- In South Bihar Alluvial Zone, in present weather condition, infection of Blast disease may be found in rice. If symptoms appear, spray of Bavistin @ 2 g /litre of water 2-3 times with an interval of 10 days interval on a non rainy day.
- **Jharkhand:**
 - In Western Plateau Zone, in fallow uplands, continue sowing of kulthi, niger, early potato and green peas at optimum soil moisture condition. The recommended variety of potato for this area is Kufri Ashoka and Kufri Kanchan.
 - In Central and North Eastern parts of Jharkhand, continue sowing of improved varieties of niger –Birsa Niger-1 , Birsa Niger-2 and Birsa Niger-3 in uplands, planting of early variety of potato and pea. To control Gall midge in rice crop, apply Phorate 10 g @ 8 kg per hectare and for Case worm and Stem borer, spraying of Chlorpyrifos or Quinolphos @ 1.5 ml per litre of water. If sheath blight is noticed, drain the water from the paddy fields and apply top dressing of extra dose of Potash @ 30 kg ha, followed by spraying of Hexaconazole (Kantof) 0.2% or Validamycin 0.25% solution.
 - In South Eastern Plateau Zone, in cucurbitaceous crops, if attack of red pumpkin beetle is found, spraying of Diclorvos 76 EC (DDVP) @ 1 ml/litre of water is advised on a non rainy day.
 - In South Eastern Plateau Zone, presently weather is conducive for the occurrence of pests like hairy caterpillar on groundnut crop. So, in early stage of caterpillar, apply Dichlorvos @ 0.5 ml per litre of water on a non rainy day. For control of adult caterpillar, provide bamboo perch in the fields for predatory birds.
 - In Western Plateau Zone, timely sown rice crop are at flowering stage and this stage is susceptible to the attack of Gundhi bug. To control the insects, dusting of Chlorpyrifos/Quinolphos/Methyl Parathion dust @ 10 kg per acre is recommended on a non rainy day.
 - In Western Plateau Zone, in some pockets, attack of stem borer/leaf eating insects is noticed on rice crop. Broadcast granular insecticides like Carbofuran 3G @12 kg per acre or Phorate 10 G @ 4 kg per acre to control them. Keep stagnant water in the fields during broadcasting of these insecticides. Also, in some áreas, maize crop is affected by fruit borer. Spray neem based insecticide @ 2-3 ml. per liter of wáter on upper part of the plant on a non-rainy day to control these insects.
 - Suitable varieties for sowing are given in Annexure III.
- **Animal Husbandry**
 - In Jharkhand, vaccinate poultry for the protection against ranikhet disease. All domestic animals should be dewormed for the intestinal parasitic load under the care of veterinarian.
 - In North East Alluvail Zone of Bihar, during rainy season, avoid fly on the animal skin because Myiasis may be developed. Fumigation of the animal shed must be done and wash the shed with Phenyl.
 - In Terai Zone of West Bengal, vaccinate cattle against BQ and HS (BQ, HS Vaccine/ HS+BQ).

CENTRAL INDIA [M.P., CHHATTISGARH]



Maize



Rice



Soybean



Green gram

- **Realised Rainfall:** Rainfall occurred in Balaghat, Damoh, Dindori, Katni, Mandla, Narsinghpur, Rewa, Seoni, Sidhi, Sigraulti, Umaria districts of East Madhya Pradesh; in Alirajpur, Badwani, Bhopal, Burhanpur, Dhar, Gwalior, Harda, Hoshangabad, Jhabua, Khandwa, Khargone, Raisen, Ratlam, Ujjain and Vidisha districts of West Madhya Pradesh. Rainfall occurred in all districts of Chhattisgarh except Dantewada, Janjgir, Jashpurnagar, Mungeli, Surajpur district. Weather remained mainly dry over rest of the region in the states.

- **Advisories:**

- **Madhya Pradesh**

- In West Madhya Pradesh, as mainly dry weather would prevail, continue harvesting of matured soybean, green gram and black gram in Gwalior, Bhind, Morena, Guna, Ashoknagar and Shivpuri Hoshangabad and Narsinghpur districts.
- In Gwalior, Bhind, Morena, Guna, Ashoknagar and Shivpuri districts, undertake sowing of toria and undertake land preparation for sowing of mustard. As prevailing temperature is above the optimum temperature for sowing, undertake sowing at optimum temperature and soil moisture conditions.
- In Chhindwara and Betul districts, continue nursery preparation for tomato, chilli, brinjal and nursery sowing of cabbage, cauliflower and sowing of garlic, coriander etc.
- In Tikamgarh, Chhatrapur and Datia districts, undertake sowing of radish, fenugreek, spinach, mustard, coriander and turnip and harvesting of matured green gram, black gram and soybean.
- In Indore and Ujjain districts, continue harvesting of short duration variety of soybean and maize. Undertake nursery preparation for early winter vegetables and field preparation for sowing of potato, pea and garlic.
- In Jhabua, Alirajpur and Dhar districts, continue harvesting of matured green gram, black gram, maize and medium variety of soybean.
- In Jabalpur, Rewa, Satna districts, continue sowing of mustard and pea and harvesting of matured soybean, urad and moong.
- In Tikamgarh, Chhatrapur and Datia districts of Bundelkhand Zone, chilli and tomato crops may be affected by leaf curl and there may be attack of red pumpkin beetle in cucurbit crops. Monitor the crops and take appropriate plant protection measures.
- In Gwalior, Bhind, Morena, Guna, Ashoknagar, Shivpuri, Pigeon pea (arhar) crop is at pod development stage and at this stage there may be attack of pod borer insect, to control, spray Trizophos @ 750ml /ha in 500 to 600 litres of water.
- In Central Narmada Valley Zone, due to humid weather, there are chances of infestation of hairy caterpillar in maize, apply Carbaryl 50% WP @ 2 kg/ha in 1000 litres of water.

- **Chhattisgarh:**

- In North Chhattisgarh, continue nursery preparation of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. and undertake land preparation for sowing of *rabi* crops like toria, mustard, green pea and potato. Complete harvesting of mung, urd, maize, rice, groundnut, finger millet in clear weather.
- In Central Chhattisgarh, undertake land preparation for sowing of *rabi* crops like chickpea, linseed, toria etc. Undertake nursery sowing of early winter vegetable varieties of cauliflower, cabbage, KnolKhol, tomato, brinjal, chillies and capsicum.
- In South Chhattisgarh, continue sowing of toria and harvesting of matured short duration variety of rice in clear weather.
- In Chhattisgarh, due to humid weather incidence of blast is observed in rice crop, spray Tricyclazole @ 120 g/acre on a non rainy day and repeat after 10-12 days as per requirement.
- Suitable varieties for sowing are given in Annexure III.

- **Animal Husbandry**

- In Chhattisgarh, Consult the doctor for H.S, B.Q, Anthrax, Theileriosis and warms prevention and treatment. This is high time for deworming. The medicine like piperagen, Benminth, and Panaraquar are effective.
- In Madhya Pradesh, present weather condition is suitable for breeding period of buffalo. Therefore farmers are advised to incorporate minerals salts and vitamins in their feed. Activity of house flies and mosquitoes is observed in poultry houses, for control measures, spray finite or dust power of melathion in the poultry houses. To control Ranikhet disease in bird, give F-1 or Lasota strain vaccine.

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



Groundnut



Maize



Rice



Okra

- **Realised Rainfall:** Rainfall occurred in Pithorgarh district of Uttarakhand; in Faridabad, Rewari districts of

Harayana; in Central Delhi of New Delhi; in Allahabad, Azamgarh, Ballia, Deoria, Gazipur, Mau, Mirzapur, Sahuji Maharaj Nagar, Sant Ravidas Nagar, Shrawasti, Sonbhadra districts of East Uttar Pradesh; in Mahamayanagar district of West Uttar Pradesh; in Banswara, Dungarpur, Pratapgarh, Rajsamand, Sirohi, Udaipur districts of East Rajasthan, in Barmer, Churu, Jalore, Pali districts of West Rajasthan, Weather remained mainly dry over rest of the region.

- **Advisories:**

- **Rajasthan:**

- In Arid Western Plain Zone, in Barmer, Churu, Jalore, Jodhpur, Pali districts, continue land preparation for sowing of taramira, gram, mustard crops. In Jaisalmer and Bikaner districts, continue harvesting of matured pearl millet, moong bean, moth bean crops. Continue land preparation for sowing of lucerne, berseem, oat as fodder in irrigated areas and radish, carrot crop. Apply irrigation in groundnut as per requirement.
- In East Rajasthan, Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts of Sub Humid Southern Plain and Aravali Hill Zone, undertake harvesting of matured maize, sorghum, pulses, green gram. Continue seed bed preparation for nursery raising of chilli, brinjal, tomato for rabi season.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, undertake sowing of mustard and land preparation for sowing of gram. Continue harvesting of matured guar, mung. Apply irrigation to paddy as per requirement.
- In Dungarpur and Banswara districts of Southern Humid Plain Zone, prevailing weather condition is congenial for attack of sucking pests and alternaria leaf spots in cotton and bacterial leaf blight in paddy, for control spray Emidachloprid 17.8 SL @ 200 ml per hectare or Dimethoate 30 EC @ 1 litre per hectare for control of sucking pests and spray solution of Propineb @ 2 g or Mancozeb @ 3 g per litre of water for alternaria leaf spots in cotton and for control of bacterial leaf blight in paddy spray Streptocycline @ 1g & Copper Oxychloride @ 30 g per 10 litres of water.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, Undertake land preparation for sowing of early pea, rainfed taramira and mustard, desi carrot. Undertake sowing of radish, use 10-12 kg seed per hectare and 20 kg Nitrogen, 48 kg Phosphorus and 48 kg potash per hectare at the time of sowing.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of blight in tomato, for control spray Mencozeb @ 2 gm or copper oxychloride @ 3 gm per litre of water.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, due to dry weather, there may be attack of termite in groundnut, for control, spray Chlorpyrifos 25 EC @ 4.0 litres per hectare with irrigation water or mix the same amount of Chlorpyrifos in 80-100 kg soil and broadcast and irrigate immediately.
- In East Rajasthan, Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts of Sub Humid Southern Plain and Aravali Hill Zone, prevailing weather condition is congenial for attack of leaf curl disease in shimla mirch, for control. spray Phosphomidon 40 SL @ 1 ml per litre of water.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, prevailing weather condition is congenial for attack of spotted bollworm in Desi cotton, for control, spray Spinosad 45 SC @ 0.33 ml or Flubendiamid 480 SC @ 0.4 ml per litre of water.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar, prevailing weather condition is congenial for attack of blast in paddy crop, for control spray Hinosan @ 150 gm per 100 litres of water.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganganagar prevailing weather condition is congenial for attack of tikka in groundnut, for control spray Carbendesim (50% WP) 0.1% @ 1 gm. per litre of water or Hexaconazole 5 EC @ 1 ml per litre of water.

- **Jammu & Kashmir:**

- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, undertake harvesting of matured rice crop, maize and mash pods. Undertake sowing of berseem as fodder for animals.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, harvest the early maturing varieties of rice in clear weather. Complete sowing of toria as early as possible. Undertake harvesting of matured maize, bajra, moong and mash crop in clear weather. The fields that have been vacant after harvesting are required to be ploughed and planked for conservation of moisture to keep them ready for sowing of rabi crops.
- In Valley Temperate Zone of Jammu and Kashmir, continue harvesting of rice, maize and kharif pulses. Undertake field preparation for sowing of brown sarson, oat, pea, lentil, spinach, methic, garlic and berseem.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, undertake sowing of winter potato and nursery raising /sowing of onion, radish, carrot, turnip, garlic and methi.
- In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone continue sowing of radish and carrot on ridges and nursery raising of main season cole crops like cabbage, cauliflower and KnolKhol. Light sprinkling of water may be done on alternate days to nursery beds.
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, due to the prevailing weather conditions, rice crop (Basmati) may be infected with brown spot, to control, spray the Mancozeb @ 0.25%. Give 2-3 sprays at 15

days interval.

▪ **Uttarakhand:**

- In Udham Singh Nagar district of Bhabar and Tarai Zone, undertake harvesting of early and mid season variety of paddy on appearance of golden color of panicle in Paddy. Irrigation should be stopped before 10-15 days of harvesting of paddy. Complete sowing of mustard till first week of October. Undertake sowing of carrot, radish, potato and Knol-khol in the prepared fields.
- In TehriGarhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, continue sowing of toria in mid and high altitude region. Complete transplanting of cabbage and broccoli.
- In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, give third dose of nitrogen @ 20kg/hectare to late sown paddy crop. Undertake sowing of toria and potato under optimum soil moisture condition.
- In TehriGarhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, complete sowing of spinach, radish, carrot, fenugreek and coriander.
- In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, under prevailing weather conditions there is possibility of incidence of blue beetle and leaf folder insect in paddy crop to long duration varieties and Gandhi bug to medium duration varieties. Take proper plant protection measures to control the attack of above pests in clear weather.
- In Bhabar and Tarai Zone, nowadays, occurrence of Bacterial Panicle Blight was observed in the PR 113 variety of Paddy, due to which grain of paddy turned black. There is no cure of Bacterial Panicle Blight. So, it is advised that chemicals should not be used unnecessarily and don't use the Paddy variety PR 113 in future.

▪ **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, undertake harvesting of matured pulses and rice. Continue land preparation for sowing of mustard and early wheat in lower region. Continue sowing of turnip and radish in lower rainfed areas. Continue nursery sowing of Chinese cabbage and direct sowing of radish, carrot, broccoli, lettuce. Continue planting of onion. Undertake sowing of potato in lower and mid hill regions. Undertake sowing of berseem, lucerne and oats for fodder. Undertake sowing of mushroom and maintain room temperature 18-22°C for successful cultivation of dhingri mushroom.
- In Mid Hills Sub-Humid Zone of Himachal Pradesh, in Bilaspur, Solan, Shimla and Sirmour districts, continue nursery sowing of cauliflower and transplanting of cabbage.
- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul&Spiti, apply irrigation as per requirement in the oat fields. Continue harvesting of matured potato crop.
- In Mild Hills Sub-Humid Zone, in Kullu and Mandi districts apply Blitox @ 600 gm. per 200 litres of water after harvesting of Apple and Pomegranate orchards.
- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul & Spiti, present weather is conducive for untimely fall of leaves in apple trees at fruiting stage, for control spray Mancozeb @ 500 gm + Carbendazim @ 100 gm per 20 litres of water, at 20 days interval.
- In Mild Hills Sub-Humid Zone, in Kullu and Mandi districts, present weather is conducive for attack of woolly apple aphid in Apple, for control spray Marshal @ 200ml per 200litres of water.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, in lower regions, weather is conducive for attack of blister blight in tea in shady and high humid areas, for control, spray Calixin @ 0.2% or Folicure @ 0.1% and if attack is severe then repeatspray at 15 days with alternate spray of blitox @ 0.3% at seven days interval, For the control of weeds in tea gardens, spray Glyphosate on weeds @ 2.5 ml per litres of water.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, weather is conducive for attack of smut in paddy with symptoms of grains size brown coloured fungus lesion inside, for control spray Blitox 50 @ 500 gm per hectare at 10 days interval (2-3 times).
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, weather is conducive for attack of termites in vegetables, for control spray Chlorpyrifos 20 EC @ 4 ml per litre of water.

▪ **Punjab, Haryana and Delhi:**

- In Punjab, in Fazilka, Ferozepur and Faridkot districts, farmers are advised to apply irrigation in rice at flowering/grain formation stage for higher yield and stop irrigation two weeks before harvesting. To avoid the shedding of flowers and bolls, maintain optimum moisture in cotton crop during flowering and fruiting stages. Also apply irrigation in maize at flowering/tasselling stage. Complete the planting of sugarcane in the first fortnight of October. Undertake sowing of gram varieties PDG-4, PDG-3 under rainfed conditions.
- In Western Zone of Punjab, transplant fully developed seedlings (4-6 weeks old) of cauliflower. Apply 45 kg urea, 155 kg superphosphate and 40 kg muriate of potash before transplanting. Undertake sowing of late season varieties of cauliflower i.e. can be started. Undertake sowing of early varieties of potato and "desi" varieties of radish (Punjab Pasand), turnip (L-1) and carrot (Punjab Black Beauty, Punjab Carrot Red and PC 34), using 4-5 kg seed rate of radish and carrot and 2-3 kg seed rate of turnip per acre. Keep ridges 45 cm and plants 7.5 cm apart. Apply

irrigation in rice and cotton as per requirement. Undertake sowing wheat varieties (PBW 725, PBW 677, HD-3086, WH 1105, PBW 621, HD 2967) and durum wheat (WHD 943 and PDW 29) under irrigated conditions and PBW 660 and PBW-644 under rainfed conditions last week of October.

- In Undulating Plain Zone, apply irrigation in vegetable nursery.
- In Central Plain Zone of Punjab, continue sowing of pea and planting of fruit crops like citrus, mango, litchi, guava etc.
- In Ajitgarh, Rupnagar and SBS Nagar districts, continue sowing of mash, okra, cucurbits, cowpea, sesame and nursery raising of early varieties of cauliflower, brinjal and tomato.
- In Western Zone of Haryana, continue sowing of arhar, green gram and black gram. Undertake harvesting and threshing of matured bajra crop and picking of cotton crops after sunrise. Undertake field preparation for sowing of mustard, raya and gram.
- In Eastern Zone of Haryana, continue sowing of fodder crops such as guar, maize and bajra.
- In Western Semi-Arid Zone of Delhi, field preparation may be started for sowing of early mustard- Pusa Sarson-25, Pusa Sarson-26, Pusa Agrni, Pusa Taraka, Pusa Mahak and early pea (Cultivars- Pusapragati, Pant matar-3, Arkiletc). Farmers are advised to do arrangement for quality seeds. Weather is suitable for sowing of carrot in the raised bed. Recommended cultivars: Pusa Rudhira. Seed rate-4.0 kg/acre. Application of FYM, potash and phosphorus fertilizer is recommended. Seed treatment with Captan @ 2 g per kilogram is advised. Undertake transplanting of green onion seedling in the prepared fields and planting of early potato.
- In Western Zone of Haryana, due to warm weather condition, rice blast may be noticed in early transplanted rice crop. Spray 200 gram Carbendazim mixed with 200 litre of water per acre. Due to prevailing warm and humid weather, infestation of myrothecium leaf spot, bacterial blight in cotton, spray 800 gram copperoxychloride mixed with 250 liter water per acre. For better leaf adhesive use 10 gram selvat or 50 ml triton in 100 liter solution.
- In Central Plain Zone and Western Zone of Punjab, sheath blight may be noticed in rice. Control the same by spraying Nativo 75 WG @ 80 g or Lustre 37.5 SE @ 320 ml or Folicure/Orius 25 EC @ 200 ml or Bavistin 50 WP @ 200 g or Tilt/Bumper 25 EC or Monceren 250 SC 200 ml in 200 litres of water.
- In Western Semi-Arid Zone of Delhi, in present weather conditions, monitor for brown plant hopper (BPH) in paddy, spray Emidachloprid 17.8 % SC @ 1.0 ml/3 litre or Fenobucarb 50 EC @ 1 ml/litre or Buprofezin 25 EC @ 2 ml/litre of water. Monitor the infection of blast disease in rice at 2-3 days interval. If symptoms appear then, spray of Bavistin 2 gram/litre of water 2-3 times with an interval of 10 days. False smut may appear in paddy in present weather conditions spray of Blitox 50 @ 500 grams per acre at 10 days interval.

▪ **Uttar Pradesh:**

- In Central Plain Zone of Uttar Pradesh, continue sowing of toria, mustard, rabi maize, kabuli gram, vegetable pea and cabbage. Continue planting of potato and transplanting of mid season brinjal, tomato, cauliflower, tomato and capsicum. Undertake sowing of winter vegetable like spinach, fenugreek, coriander, carrot, Radish etc.
- In Eastern Plain Zone of Uttar Pradesh, apply irrigation to paddy crop as per requirement. Continue sowing of toria, potato, vegetable pea. Undertake transplanting of cauliflower, cabbage, brinjal, chilli, tomato.
- In Western Plain Zone of Uttar Pradesh, Continue transplanting of brinjal, tomato, chilli, cauliflower and cabbage on raised bed if seedlings are ready.
- In Bundelkhand Zone of Uttar Pradesh, continue sowing of linseed, mustard, vegetable peas, gram, pea, lentil, and toria. Apply irrigation as per requirement to groundnut, soybean, jwar, arhar crops. Continue transplanting of late sowing brinjal, chilli, tomato, cabbage, cauliflower. Undertake sowing of radish, cabbage, carrot, coriander and sowing of barseem for fodder crop.
- In Central Plain Zone of East Uttar Pradesh due to prevailing weather condition, there may be chances of attack of stem borer in paddy, for control spray Chlorpyrifos 20 EC or Quinalphos 25 EC @ 1.5 litres per 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 gundhi bug in paddy, for control, broadcast Methyl Parathion 2% or Malathion 5% @ 20 to 25 kg. Per hectare.
- In Central Plain Zone of East Uttar Pradesh due to prevailing weather condition, there may be chances of attack of pod borer/sucking pest in Urd and Mung, for control, spray Quinalphos 25 EC @ 1.5 litres per 600 to 700 litres of water per hectare.
- In North Eastern Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of tikka in groundnut, for control spray mixture of Carbendazim @ 2 gm + Copper Oxichloride @ 1 gm + Streptocycline per litre of water per acre.
- In North eastern plain Zone, due to prevailing weather condition, there may be chances of attack of yellow mosaic virus in bhindi, for control, spray mixture of 0.2% Redomil MZ and 0.2% Monocrotophos @ 200 ml in 200 litres of water per acre.
- Suitable varieties for sowing are given in Annexure III.

▪ **Horticulture:**

- In Central Plain Zone of Uttar Pradesh, due to prevailing weather condition, there may be chances of dry rust in

anola, for control, apply Borax @ 6 gm per litre of water.

- In Semi-Arid Eastern Plain Zone, and in Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, prevailing weather condition is congenial for attack of fruit fly in guava, for control burry the affected plants in soil and spray Malathion 50 EC @ 1.0 ml per litre of water.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of leaf curl & mosaic in Papaya, for control uproot & burn the affected plants and spray Dimethoate 30 EC or Methyl Demeton 25 EC @ 1 ml per litre of water.
- In Una, Hamirpur, Kangra and Chamba districts of Himachal Pradesh, weather is conducive for leaf minor in new growth of citrus on citrus plants, for control spray Malathion @ 10 ml or Metasystox @ 10 ml per 10 litres of water.
- In Himachal Pradesh, undertake land preparations for planting of strawberry and picking in tea at 8 days interval to maintain the quality and productivity. Undertake lopping of shade trees in tea orchards.
- In Nainital district of Bhabar and Tarai Zone, give irrigation to newly transplanted orchard of Mango and Litchi. In ready fields of valley, undertake sowing of potato of varieties KufriAshoka or KufriJyotibut not under highly moist condition. Undertake picking up of capsicum, tomato from the polyhouse.
- **Apiculture:**
 - In Himachal Pradesh, to control mites attack on honeybees, dust Sulphur on sealed brood in the colony and not on larvae. For protection from ants put the legs of apiary into water so that ants could not attack apiary.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, to avoid robbing and insect pest infestation farmers are advised to close /seal all cracks, crevices and hole of honey bee colonies with wet soil.
 - In Valley Temperate Zone of Jammu and Kashmir, protect colonies from varroa mite by applying formic acid 85% @34ml /napkin pads per colony in porous polythene bags placed on the top brass or install drone combs (frames).
- **Floriculture**
 - In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, farmers can go for transplanting of seedlings of marigold and winter season annuals due to presence of sufficient moisture in soil.
 - In Central Plain Zone of Uttar Pradesh spray Diathen M-45 @ 2 gm per litre of water after pruning of rose.
 - In Himachal Pradesh, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of blue beetle in balsam, zinnia, cleome and rose, for control spray Cypermethrin @ 20 ml in 10 litres of water. In poly house there may be attack of thrips and beetle, for control spray Rogor @ 20 ml in 10 litres of water for thrips and for beetle spray Dicofol @ 20 ml in 10 litres of water.
 - In Himachal Pradesh, in Una, Hamirpur, Kangra and Chamba districts, complete pinching and staking in carnation. Undertake transplanting of marigold seedling in fields for summer crop. Undertake earthing up operation in gladiolus and disbudding in carnation.
- **Animal Husbandry**
 - In Punjab, in case of tick infestation in animals, control it by spraying Asuntol (1 g/litre of water) or Butox (2 ml/litre of water) on the animals as well as in the sheds and repeat the spray after 10-15 days. Do not spray animals below six months of age.
 - In Rajasthan state Mastitis disease may be seen in milch animals. In this disease Mammary glands & teats become swollen & blood spots in milk may be seen. Treat the affected animal under the guidance of veterinary doctor.
 - In Himachal Pradesh, in Una, Hamirpur, Kangra and Chamba districts, there may be attack of ticks and mites on animals, for control spray Botox @ 2 ml per litre of water.
 - In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul&Spiti, there may be attack of ringworm (fungal infection) in animals, for control, after clipping hair and scrubbing with soap and water, apply Salicylic or Benzoic acid ointment (2 to 5%) or Iodine once daily until lesions heal.
 - In Nainital district of Bhabar and Tarai Zone, to save the animals from Gal-Ghotu disease, keep them in neat and clean places. When symptoms of Gal-Ghotu disease appears in the animals, then contact immediately to the nearest Veterinarian for advice.
- **Poultry:**
 - In Himachal Pradesh, weather is congenial for attack of Diathermia and Cocksedia in poultry, for control spray Formalin 40% @ 1 litre in 9 litres of water around the farm.
 - In Nainital district of Bhabar and Tarai Zone, there is a chance of Aflatoxicosis disease in poultry due to occurrence of fungus in the food which causes death of poultry birds. So, medicine should be administered to the poultry birds only on the advice of veterinarian.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	21.09.16		28.09.16		05.10.16	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	37.5	-64	100.6	58	2.5	-98
Dibang Valley	**	**	**	**	**	**
East Kameng	20.2	-67	33.7	-50	9.7	-68
East Siang	27.2	-83	155.3	41	3.8	-96
Kurung Kumey	**	**	**	**	**	**
Lohit	32.9	-53	31.0	-53	3.1	-95
Lower Dibang Valley	32.4	-46	64.8	19	0.0	-100
Lower Subansari	**	**	**	**	**	**
Papumpare	145.4	28	211.6	87	5.9	-92
Tawang	80.0	-45	38.0	-61	4.0	-96
Tirap	36.8	-61	108.8	39	6.8	-93
Upper Siang	162.6	-5	503.6	215	8.2	-90
Upper Subansari	244.8	398	261.4	406	4.0	-76
West Kameng	42.8	-71	8.2	-92	4.2	-96
West Siang	60.8	-28	86.8	56	2.5	-91
Assam&Meghalaya						
Assam						
Baksa	33.2	-77	24.2	-75	0.6	-99
Barpeta	67.9	-54	71.3	-25	10.1	-77
Bongaigaon	116.6	15	26.8	-73	12.6	-78
Cachar	57.2	-20	104.1	43	130.1	89
Chirang	168.4	66	47.8	-53	10.0	-82
Darrang	**	**	**	**	**	**
Dhemaji	**	**	**	**	0.0	-100
Dhubri	102.8	13	58.9	-24	14.1	-81
Dibrugarh	49.9	-36	59.9	-2	12.2	-76
Goalpara	105.5	34	58.0	-30	0.0	-100
Golaghat	24.7	-55	36.1	-11	9.8	-58
Hailakandi	33.2	-39	110.1	53	39.5	-30
Jorhat	34.0	-41	40.3	-28	8.6	-81
Kamrup(Rural)	12.7	-70	24.0	-45	0.4	-99
Kamrup(Metro)	25.9	-40	14.1	-67	0.8	-98
Karbi Anglong	76.7	79	30.5	-23	5.5	-79
Karimganj	77.7	-30	93.1	24	51.5	-30
Kokrajhar	73.5	-40	91.1	-24	10.9	-78
Lakhimpur	56.4	-43	113.2	19	5.8	-89
Morigaon	56.4	21	73.0	28	42.4	101
N.C.Hills	0.0	-100	58.2	5	9.4	-76

Nagaon	19.3	-58	26.1	-46	9.9	-71
Nalbari	46.8	-41	62.1	70	0.0	-100
Sonitpur	63.8	8	45.0	12	7.4	-78
Sibsagar	37.8	-14	63.6	65	10.1	-65
Tinsukia	39.6	-54	68.1	13	18.1	-55
Udalgiri	94.8	46	16.5	-55	10.5	-67
Meghalaya						
East Garo Hills	29.0	-64	51.8	-6	15.6	-76
East Khasi Hills	65.5	-50	54.0	-47	26.9	-74
Jaintia Hills	0.0	-100	0.0	-100	1.0	-99
Ribhoi	59.8	-18	74.1	-1	8.9	-73
South Garo Hills	5.0	-94	6.0	-90	7.0	-89
West Garo Hills	51.4	-41	100.8	69	0.0	-100
West Khasi Hills	13.0	-82	29.0	-77	32.0	-31
NMMT						
Mizoram						
Aizwal	95.4	-1	76.8	0	75.3	-16
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	204.0	103	79.6	-26	56.5	-35
Mamit	**	**	**	**	**	**
Saiha	59.0	-33	182.0	85	71.0	-24
Serchhip	116.9	35	92.5	16	19.2	-67
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	25.8	-46	89.6	143	0.0	-100
Imphal west	94.2	134	183.5	432	100.8	80
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	30.0	-4	32.0	99	0.0	-100
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	38.3	-2	25.7	41	8.6	-77
Kephire	43.0	-28	50.0	-12	37.0	-46
Kohima	9.6	-82	30.9	-36	29.4	-27
Longleng	**	**	**	**	**	**
Mokokchung	12.0	-80	25.0	28	4.0	-93
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	57.0	7	24.0	-51	19.0	-53
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	53.0	43.0
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	97.2	58	30.7	-49	74.0	33
NorthTripura	78.2	35	53.6	-8	21.3	-61

South Tripura	31.6	-36	49.4	-29	35.1	-37
West Tripura	15.4	-71	13.1	-77	17.7	-68
Himachal Pradesh						
Bilaspur	6.2	-81	15.4	-50	1.5	-86
Chamba	0.0	-100	6.0	-88	6.1	-74
Hamirpur	2.7	-91	29.6	-18	0.2	-99
Kangra	26.5	-30	20.9	-49	3.3	-86
Kinnaur	0.2	-98	10.4	-53	0.0	-100
Kullu	0.0	-100	6.7	-71	5.2	-31
Lahaul and Spiti	0.0	-100	1.0	-97	0.0	-100
Mandi	6.3	-77	14.0	-51	4.6	-67
Shimla	5.0	-74	10.1	-59	3.6	-62
Sirmaur	0.2	-99	55.7	47	9.3	-43
Solan	0.0	-100	5.8	-86	4.3	-69
Una	31.9	40	36.5	-13	6.9	-66
Punjab						
Amritsar	0.0	-100	12.7	-46	0.0	-100
Barnala	0.0	-100	0.0	-100	0.0	-100
Bhatinda	0.9	-93	0.0	-100	0.0	-100
Faridkot	0.0	-100	0.0	-100	0.0	-100
Fatehgarh Sahib	0.0	-100	0.3	-99	0.0	-100
Ferozpur	0.0	-100	0.0	-100	0.0	-100
Gurdaspur	0.2	-99	15.1	-53	1.9	-90
Hoshiarpur	2.8	-83	2.3	-94	1.2	-94
Jalandhar	3.7	-70	1.3	-95	0.0	-100
Kapurthala	0.3	-98	3.2	-84	0.0	-100
Ludhiana	3.5	-77	0.5	-98	0.3	-98
Mansa	0.0	-100	0.0	-100	0.0	-100
Moga	0.0	-100	0.0	-100	2.0	-88
Muktesar	0.0	-100	0.0	-100	0.0	-100
Nawashahar	14.9	-10	21.3	-52	0.0	-100
Patiala	0.0	-100	0.0	-100	0.0	-100
Ropar	16.0	1	24.0	-30	0.0	-100
Sangrur	0.0	-100	0.0	-100	0.5	-95
Mohali	0.0	-100	47.0	71	4.0	-47
Tarn Taran	0.0	-100	0.0	-100	0.0	-100
Haryana, Chd, Delhi						
Haryana						
Ambala	2.7	-93	21.6	-45	0.0	-100
Bhiwani	0.0	-100	0.0	-100	3.6	-45
Chandigarh	1.7	-94	27.6	-33	0.1	-99
Faridabad	0.0	-100	0.0	-100	20.0	113
Fatehabad	0.0	-100	0.0	-100	0.0	-100
Gurgaon	3.4	-57	2.0	-79	15.4	133
Hissar	0.0	-100	0.0	-100	3.9	-42
Jhajar	0.0	-100	0.0	-100	0.0	-100
Jind	0.0	-100	0.0	-100	0.3	-96
Katihah	0.0	-100	0.0	-100	0.0	-100
Karnal	0.0	-100	0.0	-100	0.3	-97

Kurukshetra	0.0	-100	0.0	-100	0.0	-100
Mahendragarh	0.0	-100	1.5	-77	0.0	-100
Mewat	0.0	-100	1.4	-88	3.4	-75
Palwal	0.0	-100	0.0	-100	0.0	-100
Panchkkula	7.8	-71	15.4	-46	1.0	-91
Panipat	0.0	-100	0.0	-100	1.2	-87
Rewari	2.3	-67	2.5	-74	29.3	193
Rohtak	0.0	-100	0.0	-100	0.0	-100
Sirsa	0.0	-100	0.0	-100	12.3	44
Sonepat	0.0	-100	0.0	-100	0.5	-94
Yamunanagar	0.0	-100	15.0	-43	3.6	-74
Delhi						
Central Delhi	0.0	-100	1.0	-93	23.0	107
East Delhi	6.0	-63	0.0	-100	2.0	-82
New Delhi	7.7	-53	0.0	-100	1.5	-86
North Delhi	0.0	-100	0.8	-95	17.7	59
North East Delhi	0.0	-100	4.0	-71	8.0	-28
North West Delhi	0.0	-100	0.0	-100	0.0	-100
South Delhi	0.0	-100	0.0	-100	4.8	-57
South West Delhi	0.0	-100	5.1	-63	7.1	-36
West Delhi	**	**	**	**	0.0	-100
Jammu & Kashmir						
Anantnag	0.4	-97	4.3	-70	1.9	-75
Badgam	0.0	-100	0.4	-96	0.0	-100
Bandipore	**	**	**	**	**	**
Baramula	0.0	-100	4.2	-66	0.0	-100
Doda	0.0	-100	2.0	-95	0.0	-100
Ganderbal	0.0	-100	0.0	-100	0.0	-100
Jammu	0.0	-100	20.9	-34	0.0	-100
Kargil	**	**	**	**	**	**
Kathua	0.0	-100	17.2	-43	44.4	107
Kistwar	**	**	**	**	**	**
Kulgam	0.0	-100	0.0	-100	0.0	-100
Kupwara	0.0	-100	3.0	-68	0.0	-100
Ladakh(Leh)	0.0	-100	0.0	-100	0.0	-100
Poonch	**	**	**	**	**	**
Pulwama	0.0	-100	0.3	-98	0.0	-100
Rajouri	0.0	-100	5.8	-78	0.0	-100
Ramban	0.0	-100	3.1	-92	0.0	-100
Reasi	18.5	-49	24.6	-50	0.8	-97
Samba	0.0	-100	13.6	-57	0.0	-100
Shopian	**	**	**	**	**	**
Srinagar	0.0	-100	0.0	-100	2.9	-56
Udhampur	0.0	-100	1.4	-97	0.0	-100
East Madhya Pradesh						
Anuppur	24.6	-46	73.1	109	12.3	-28
Balaghat	12.6	-65	61.9	71	21.8	-8
Chhatarpur	24.7	-41	54.5	163	1.3	-91

Chindwara	36.4	7	56.9	84	19.3	-9
Damoh	10.5	-78	22.5	15	21.0	38
Dindori	65.8	90	204.9	561	59.3	264
Jabalpur	16.1	-56	22.4	-16	19.7	34
Katni	5.3	-86	41.4	65	25.5	69
Mandla	33.6	-23	66.2	126	37.4	130
Narsingpur	20.0	-57	9.0	-69	31.8	73
Panna	49.5	20	2.8	-88	7.8	-48
Rewa	37.9	-1	33.1	43	55.0	213
Sagar	31.0	-31	31.8	32	10.2	-33
Satna	29.4	-22	24.2	-9	16.4	-12
Seoni	36.8	-18	48.5	72	26.0	42
Shahdol	13.1	-64	129.6	420	19.2	31
Sidhi	11.6	-73	134.4	304	21.4	0
Singrauli	34.9	-12	31.4	32	90.0	809
Tikamgarh	5.3	-85	3.5	-79	10.0	-26
Umaria	71.0	56	65.5	148	25.0	59
West Madhya Pradesh						
Agar	15.9	-47	2.5	-94	5.8	-79
Alirajpur	123.9	323	52.2	103	73.4	303
Asoknagar	25.5	-37	0.5	-97	3.2	-70
Badwani	106.7	289	12.1	-61	58.1	240
Betul	30.9	-20	38.6	43	12.7	-32
Bhind	9.0	-66	0.0	-100	0.5	-96
Bhopal	27.0	-23	32.2	1	32.9	130
Burhanpur	73.3	127	46.9	115	58.8	205
Datia	25.0	-39	0.0	-100	4.4	-73
Dewas	30.4	-8	7.7	-77	10.0	-40
Dhar	93.9	191	81.1	136	80.0	238
Guna	9.9	-68	14.6	-34	17.9	60
Gwalior	0.6	-99	0.0	-100	20.7	52
Harda	18.2	-55	1.7	-95	47.1	134
Hoshangabad	118.3	124	57.0	60	32.5	89
Indore	59.0	62	22.8	-44	15.5	-33
Jhabua	87.1	236	48.0	82	81.8	290
Khandwa	92.2	165	32.8	-8	58.7	221
Khargone	121.3	325	6.8	-78	55.9	205
Mandsaur	15.1	-32	9.4	-53	7.0	-51
Morena	9.1	-68	0.7	-96	0.0	-100
Neemuch	0.0	-100	25.0	56	1.7	-88
Raisen	24.4	-43	18.8	-23	29.4	85
Rajgarh	7.8	-72	10.1	-61	13.5	48
Ratlam	30.8	10	9.1	-73	28.3	43
Sehore	82.3	152	12.9	-62	10.4	-27
Shajapur	34.5	8	11.5	-65	7.5	-44
Sheopur Kalani	0.0	-100	0.0	-100	5.5	-36
Shivpuri	2.4	-92	3.6	-79	12.2	8
Ujjain	64.4	109	21.2	-33	24.2	31

Vidisha	32.5	-11	19.8	18	25.1	95
Chhattisgarh						
Balod	88.4	156	77.1	83	48.4	98
Baloda Bazar	12.9	-52	93.5	166	48.6	163
Balrampur	25.0	-31	25.0	-48	20.0	-21
Bastar	38.7	-12	1.8	-96	23.8	-33
Bemetara	63.4	85	105.9	189	69.2	259
Bijapur	40.5	-5	167.9	368	36.0	-3
Bilaspur	6.5	-81	95.2	192	31.9	69
Dantewara	147.5	280	51.4	45	11.5	-72
Dhamtari	68.8	94	72.2	95	44.8	84
Durg	97.8	183	115.6	174	25.2	3
Gariaband	38.3	0	105.0	246	32.2	13
Janjgir	24.2	-27	127.3	193	19.4	-1
Jashpurnagar	85.2	124	48.4	6	3.5	-90
Kabirdham	25.3	-25	132.6	257	45.1	96
Kanker	30.6	-30	104.9	162	62.1	157
Kondagaon	68.2	52	37.4	-10	72.2	138
Korba	68.2	47	165.2	369	23.5	-3
Koriya	32.3	-8	97.2	277	51.3	186
Mahasumund	45.7	52	59.9	80	78.6	344
Mungeli	0.0	-100	77.4	137	17.6	-7
Narayanpur	65.9	65	47.1	33	77.7	177
Raigarh	25.8	-22	43.9	15	23.3	3
Raipur	52.1	58	107.2	183	116.7	570
Rajnandgaon	17.7	-52	66.9	70	65.7	240
Sukma	60.6	40	102.2	172	51.7	73
Surajpur	33.3	-9	66.8	132	7.5	-67
Surguja	30.0	-10	69.5	79	99.8	237
East Uttar Pradesh						
Allahabad	39.8	8	51.7	107	43.5	177
Ambedkar Nagar	0.0	-100	142.0	363	8.0	-61
Azamgarh	44.5	-26	187.4	477	24.1	-8
Bahraich	34.6	-1	33.3	15	7.3	-76
Ballia	28.3	-32	87.1	222	48.7	110
Balrampur	50.7	30	0.0	-100	7.7	-80
Banda	18.9	-41	5.8	-71	3.4	-78
Barabanki	48.8	2	9.1	-63	5.7	-78
Basti	31.8	-32	179.8	529	4.1	-86
Chandauli	40.0	113	48.0	67	9.0	-57
Deoria	77.0	33	67.5	110	29.5	-23
Faizabad	43.1	-4	51.5	102	0.0	-100
Farrukhabad	4.5	-83	18.9	12	0.0	-100
Fatehpur	42.6	12	5.9	-73	0.7	-96
Gazipur	35.8	-23	96.4	171	40.1	30
Gonda	11.6	-75	10.7	-71	4.7	-86
Gorakhpur	34.9	-50	86.9	167	16.2	-57
Hardoi	9.4	-67	11.1	-48	0.0	-100
Jaunpur	52.5	5	59.0	86	15.8	-13

Kannauj	29.2	-3	1.8	-91	0.0	-100
Kanpur City	15.0	-55	1.5	-93	0.0	-100
Kanpur Dehat	7.8	-72	12.9	-51	0.0	-100
Kaushambi	13.1	-57	18.4	-38	18.7	21
Kheri	11.3	-69	32.0	7	0.0	-100
Kushi nagar	34.5	-49	52.5	27	13.5	-75
Lucknow	21.7	-41	5.9	-75	0.2	-99
Maharajganj	25.0	-59	63.8	87	19.3	-50
Mau	20.0	-63	51.5	56	25.0	-20
Mirzapur	55.9	8	91.1	219	30.5	62
Pratapgarh	10.7	-75	35.0	34	10.3	-37
RaiBareilly	12.3	-65	11.2	-52	0.2	-99
Sahuji Maharajnagar	9.0	-77	77.5	191	29.0	50
Sant Kabirnagar	98.0	99	134.0	394	12.0	-62
Sant Ravidas Nagar	37.0	97	45.0	57	28.0	33
Shrawasti	14.4	-59	53.6	85	31.0	2
Sidharthnagar	31.5	-31	8.5	-68	17.1	-50
Sitapur	13.9	-53	0.9	-97	0.0	-100
Sonbhadra	11.2	-65	103.2	212	24.0	48
Sultanpur	26.9	-39	40.2	62	0.0	-100
Unnao	10.8	-66	5.0	-81	0.0	-100
Varanasi	23.5	-52	148.9	307	15.6	-31
West Uttar Pradesh						
Agra	1.7	-93	0.9	-95	0.0	-100
Aligarh	1.1	-96	15.2	-26	4.3	-80
Auraiya	17.6	-33	0.0	-100	0.0	-100
Badaun	0.4	-99	3.2	-86	4.0	-82
Baghpat	0.0	-100	0.0	-100	0.0	-100
Bareilly	2.4	-92	33.3	17	5.9	-75
Bijnor	0.0	-100	31.8	31	8.5	-61
Bulandsahar	0.0	-100	6.1	-74	4.7	-79
Etah	2.0	-92	0.0	-100	0.0	-100
Etawah	3.3	-89	0.0	-100	0.0	-100
Firozabad	1.0	-97	0.0	-100	2.7	-80
GBNagar	0.0	-100	0.0	-100	13.0	-41
Ghaziabad	0.0	-100	0.0	-100	3.2	-85
Hamirpur	17.0	-53	6.0	-64	0.0	-100
Jalaun	10.3	-69	16.0	-26	1.3	-93
Jhansi	3.4	-91	1.4	-94	1.7	-89
Jotiba Phule Nagar	0.5	-98	15.0	-40	0.0	-100
Kanshiramnagar	13.0	-59	0.0	-100	2.0	-91
Lalitpur	17.0	-59	8.0	-57	0.0	-100
Mahamaya Nagar	0.0	-100	0.5	-98	24.5	38
Mahoba	24.6	-19	0.0	-100	5.8	-56
Mainpuri	0.5	-98	0.0	-100	0.0	-100
Mathura	0.0	-100	1.0	-93	0.0	-100
Meerut	0.0	-100	9.3	-57	0.0	-100
Moradabad	3.2	-90	31.5	20	0.5	-98

Muzaffarnagar	0.0	-100	30.9	27	0.0	-100
Pilibhit	0.0	-100	25.9	-38	1.4	-96
Rampur	4.0	-90	29.3	-3	0.0	-100
Saharanpur	0.0	-100	8.3	-54	0.0	-100
Shahjahanpur	0.8	-97	1.5	-94	0.0	-100
Uttarakhand						
Almora	1.2	-97	47.3	53	0.5	-98
Bageshwar	0.0	-100	31.5	2	0.8	-97
Chamoli	9.9	-59	34.7	72	6.6	-57
Champawat	0.0	-100	89.0	122	11.5	-64
Dehradun	11.7	-79	30.3	-12	3.2	-88
Garhwal Pauri	3.8	-91	16.6	-35	0.0	-100
Garhwal Tehri	0.2	-99	1.1	-95	0.0	-99
Haridwar	0.1	-99	37.9	66	5.7	-60
Nainital	23.9	-63	36.7	-13	1.1	-97
Pithorgarh	28.1	-50	39.7	-21	26.3	6
Rudraprayag	0.7	-98	36.4	35	13.0	-44
Udham Sing Nagar	2.3	-95	33.1	-7	0.7	-98
Uttarkashi	6.9	-86	24.2	-29	19.0	-14
Bihar						
Araria	123.1	104	204.7	255	5.4	-86
Arwal	32.6	-28	68.1	129	0.0	-100
Aurangabad	55.1	34	130.4	378	0.0	-100
Banka	77.3	66	148.1	162	11.1	-70
Begusarai	64.7	27	98.5	114	7.3	-74
Bhabua	31.2	-39	79.7	92	0.0	-100
Bhagalpur	77.0	72	76.4	32	4.7	-86
Bhojpur	70.5	26	22.5	-23	0.0	-100
Buxar	14.8	-67	49.6	147	0.0	-100
Darbhanga	35.5	-2	116.4	168	5.5	-86
East Champaran	58.2	12	49.9	31	0.9	-97
Gaya	27.4	-31	101.4	205	2.2	-89
Gopalganj	31.7	-52	88.5	204	0.0	-100
Jahanabad	89.6	53	51.9	57	0.0	-100
Jamui	7.9	-82	86.9	39	0.0	-100
Kathihar	67.2	18	60.3	-11	0.0	-100
Khagadia	54.7	-18	77.5	6	0.0	-100
Kishanganj	136.8	82	200.8	174	13.0	-60
Lakhisarai	19.1	-63	85.8	48	0.0	-100
Madhepura	65.5	39	116.7	104	0.0	-100
Madhubani	57.0	91	97.4	156	0.0	-100
Monghyar	165.8	219	130.8	126	0.0	-100
Muzaffarpur	37.7	-33	87.8	125	1.1	-97
Nalanda	35.0	-30	43.9	12	0.0	-100
Nawada	29.5	-12	88.0	123	0.0	-100
Patna	47.5	-17	77.9	91	0.0	-100
Purnea	44.5	-34	86.6	36	0.0	-100
Rohtas	16.4	-60	81.4	184	0.0	-100
Saharsha	42.0	-50	94.4	83	0.0	-100

Samstipur	35.9	-40	80.7	48	6.9	-82
Saran	25.4	-48	82.0	102	0.0	-100
Sheikpura	0.0	-100	55.3	39	0.0	-100
Sheohar	52.7	17	58.4	85	0.0	-100
Sitamarhi	73.5	63	39.8	26	1.9	-93
Siwan	37.3	-46	52.1	60	4.6	-76
Supaul	73.9	44	139.1	178	3.4	-90
Vaishali	47.1	-11	59.8	41	4.6	-88
West Champaran	72.2	-4	45.1	10	10.5	-65
Jharkhand						
Bokaro	32.2	-25	46.8	2	0.0	-100
Chatra	44.2	-27	77.0	66	30.2	22
Deoghar	33.5	-37	20.4	-71	5.1	-87
Dhanbad	46.3	-6	98.9	43	0.9	-98
Dumka	45.2	14	125.1	66	43.3	-37
East Singbhum	82.7	127	44.9	-12	13.6	-58
Garhwa	7.2	-83	66.4	93	27.5	42
Giridih	53.2	27	83.0	34	6.4	-85
Godda	70.7	73	52.4	-17	11.4	-70
Gumla	52.0	10	31.9	-33	13.8	-54
Hazaribagh	56.8	23	85.9	124	21.7	-42
Jamtara	61.2	17	85.7	11	9.7	-86
Khunti	12.8	-77	27.0	-40	3.0	-90
Koderna	10.2	-73	19.7	-64	0.7	-98
Latehar	24.5	-26	184.8	331	2.6	-91
Lohardagga	18.6	-63	109.5	154	5.1	-84
Pakur	16.2	-79	87.9	-1	21.3	-67
Palamau	7.0	-85	168.4	317	16.4	-11
Ramgarh	53.4	19	30.0	-32	9.0	-75
Ranchi	14.1	-67	28.0	-44	0.2	-99
Sahebganj	18.8	-74	131.2	36	21.0	-68
Saraikela	6.6	-86	45.4	-10	7.4	-76
Simdega	29.1	-35	30.0	-38	7.5	-74
West Singbhum	4.6	-87	74.0	68	0.0	-100
East Rajasthan						
Ajmer	0.3	-95	1.5	-80	18.1	255
Alwar	0.0	-100	5.5	-56	10.3	4
Banswara	30.0	56	33.8	58	54.0	507
Baran	9.9	-47	0.1	-99	12.5	95
Bharatpur	0.0	-100	8.0	-21	9.7	9
Bhilwara	0.3	-97	0.3	-98	6.9	28
Bundi	1.8	-83	4.2	-68	1.5	-80
Chittorgarh	0.4	-97	8.0	-48	9.9	44
Dausa	0.0	-100	11.4	-3	4.6	-53
Dholpur	0.0	-100	1.2	-91	0.5	-95
Dungarpur	7.7	-42	17.7	27	26.3	318
Jaipur	1.5	-83	10.7	19	5.5	-6
Jhalawar	27.4	35	3.7	-84	4.7	-41
Jhunjhunu	0.0	-100	7.1	-29	12.3	86

Karauli	0.0	-100	17.7	62	0.0	-100
Kota	4.5	-66	0.4	-98	11.0	124
Pratapgarh	8.0	-63	63.8	141	35.8	182
Rajsamand	3.4	-67	0.1	-99	22.9	269
Sawai Madhopur	0.0	-100	3.6	-70	1.0	-89
Sikar	5.9	-11	2.3	-74	18.8	248
Sirohi	0.0	-100	0.0	-100	47.7	784
Tonk	0.0	-100	5.5	-44	8.9	58
Udaipur	5.1	-64	4.8	-70	25.8	285
West Rajasthan						
Barmer	0.0	-100	0.0	-100	22.9	782
Bikaner	0.0	-100	0.2	-97	6.5	140
Churu	0.0	-100	22.4	136	28.8	372
Hanumangarh	0.0	-100	6.7	10	1.9	-29
Jaisalmer	0.0	-100	0.0	-100	6.2	520
Jalore	0.0	-100	0.0	-100	47.4	1380
Jodhpur	0.0	-100	0.2	-96	19.0	805
Nagaur	0.9	-85	1.8	-77	18.2	469
Pali	0.0	-100	0.0	-100	30.9	531
Sri Ganganagar	0.0	-100	6.0	70	0.0	-100
Gujarat Region						
Ahmedabad	23.2	48	1.9	-87	27.1	331
Anand	27.9	54	26.5	71	48.7	524
Aravalli	19.0	-14	16.2	-8	39.8	477
Banaskantha	0.0	-100	0.0	-100	59.3	905
Broach	75.3	250	24.6	-24	47.7	227
Chhota Udepur	65.2	69	53.1	112	30.0	75
DNH	152.7	266	109.4	3	78.1	176
Dahod	48.5	70	35.0	60	36.4	209
Daman	236.6	467	137.3	30	43.6	54
Dangs	206.1	292	32.5	-53	61.0	31
Gandhinagar	28.8	99	8.3	-56	22.2	319
Kheda	39.8	95	3.1	-82	41.6	571
Mahisagar	21.4	0	14.9	5	33.9	298
Mehsana	3.9	-77	0.2	-99	36.1	423
Narmada	87.2	214	46.1	47	61.8	186
Navsari	130.1	285	88.6	64	23.8	-26
Panchmahal	27.5	-5	22.9	7	61.4	463
Patan	0.0	-100	0.0	-100	47.4	1149
Sabarkantha	8.7	-45	3.9	-77	23.6	214
Surat	145.4	447	38.9	-11	89.1	245
Tapi	132.2	339	37.6	-17	87.0	213
Vadodara	70.2	166	23.7	-1	32.9	208
Valsad	172.1	354	108.6	35	44.5	11
S K & Diu region						
Amreli	194.0	972	1.3	-96	51.5	400
Bhavnagar	147.4	857	0.8	-97	48.9	456
Botad	33.8	96	0.0	-100	73.5	600
Devbhoomi Dwarka	9.0	92	0.0	-100	33.3	494

Diu	142.1	1745	22.4	45	6.0	22
Gir Somnath	163.1	1065	14.4	-12	23.3	133
Jamnagar	11.7	13	0.0	-100	85.3	848
Junagarh	131.7	624	26.0	52	67.8	377
Kutch	8.5	46	0.0	-100	32.5	655
Morbi	0.0	-100	0.0	-100	56.8	802
Porbandar	44.0	479	0.0	-100	62.9	511
Rajkot	82.5	346	1.9	-91	66.3	471
Surendranagar	11.5	10	0.0	-100	27.4	215
Maharashtra						
Konkan & Goa						
Mumbai City	336.2	755	374.0	359	59.8	27
Mumbai Suburban	390.1	829	244.9	203	58.1	26
North Goa	124.7	123	135.7	110	25.6	-66
Raigad	359.3	512	351.8	280	101.7	64
Ratnagiri	334.6	478	385.5	382	109.8	50
Sindhudurg	153.9	155	195.7	193	27.7	-59
South Goa	92.4	67	114.8	112	10.5	-83
Thane	235.7	381	124.6	70	46.5	1
Madhya Maharashtra						
Ahmednagar	129.1	356	78.9	76	105.0	251
Dhule	73.7	314	32.0	-4	68.7	214
Jalgaon	107.9	429	38.0	31	51.8	136
Kolhapur	55.3	49	49.2	7	7.4	-86
Nandurbar	102.9	324	33.1	-3	42.0	103
Nasik	87.6	213	51.4	11	56.9	71
Pune	89.8	157	58.9	23	49.9	23
Sangli	34.0	-1	64.0	52	12.6	-72
Satara	80.2	148	44.1	-8	48.2	17
Solapur	79.8	82	110.1	106	65.9	74
Marathwada						
Aurangabad	78.2	187	41.9	-2	56.8	120
Beed	122.0	198	220.9	380	98.8	292
Hingoli	92.0	205	85.5	139	68.5	176
Jalna	74.8	185	96.5	159	77.3	267
Latur	161.0	350	157.5	363	126.8	301
Nanded	101.3	163	109.5	188	79.5	188
Osmanabad	139.9	207	173.1	239	109.7	245
Parbhani	143.6	294	170.7	356	75.9	172
Vidarbha						
Akola	58.7	145	35.6	20	58.3	175
Amraoti	69.5	158	59.3	88	53.4	142
Bhandara	4.7	-86	73.3	129	43.2	82
Buldhana	47.4	105	56.2	115	56.5	177
Chandrapur	45.5	54	128.2	240	61.2	165
Gadchiroli	38.4	22	98.9	217	75.8	161
Gondia	7.1	-78	72.9	115	31.3	32
Nagpur	11.8	-63	44.3	58	29.7	48

Wardha	41.0	44	28.5	-10	42.3	117
Washim	45.4	41	70.2	168	49.3	132
Yeotmal	51.4	80	51.4	68	46.9	96
Odisha						
Angul	6.7	-83	32.9	-23	30.8	7
Balasore	11.5	-77	97.7	30	39.3	-43
Bargarh	16.3	-51	34.3	5	17.5	-8
Bhadrak	21.9	-56	107.7	128	34.5	-15
Bolangir	14.2	-63	59.0	86	27.9	2
Boudh	34.0	-29	46.5	12	19.2	-54
Cuttack	21.0	-52	91.8	98	49.4	20
Deogarh	20.4	-38	19.6	-52	20.6	-9
Dhenkanal	9.9	-77	36.6	-19	23.7	-42
Gajapati	60.2	-17	91.2	98	84.8	99
Ganjam	34.1	-35	103.5	135	58.4	11
Jagatsingpur	24.8	-42	118.6	134	94.6	161
Jajpur	21.8	-64	109.8	99	41.9	-8
Jharsuguda	31.1	-20	53.7	42	10.7	-53
Kalahandi	43.0	2	37.1	18	80.7	112
Kandhamal	31.6	-34	34.7	-17	38.1	-8
Kendrapara	3.5	-94	130.0	127	48.6	-11
Keonjhar	7.4	-85	43.5	-8	19.4	-41
Khurda	17.6	-69	78.2	55	56.1	25
Koraput	60.7	0	48.2	9	47.7	-6
Malkangiri	35.7	-16	8.0	-77	14.1	-63
Mayurbhanj	14.1	-72	65.0	4	50.8	4
Nawapara	50.5	58	93.0	169	28.5	7
Nawarangpur	50.8	2	41.0	23	79.2	68
Nayagarh	42.8	-20	80.5	43	60.7	40
Puri	9.3	-81	98.3	75	50.8	6
Rayagada	29.3	-41	29.5	-21	53.9	63
Sambalpur	16.3	-50	14.6	-64	7.2	-68
Sonepur	10.1	-70	33.3	-23	8.2	-70
Sundargarh	22.4	-39	52.2	53	19.1	4
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	233.1	160	104.8	11	83.4	-10
North & Middle Andaman	124.2	13	66.6	-32	113.0	13
South Andaman	184.7	65	87.0	-24	231.6	122
GWB						
Bankura	13.7	-67	51.1	-15	4.1	-93
Birbhum	29.5	-46	52.9	-34	16.8	-65
Burdwan	62.5	27	52.3	-18	1.6	-96
East Midnapore	23.6	-55	70.4	-23	58.0	-33
Hooghly	23.6	-49	54.9	-1	0.2	-99
Howrah	24.3	-51	29.3	-65	8.1	-85
Kolkata	40.6	-14	6.5	-92	6.9	-90
Murshidabad	39.5	-20	63.1	-15	12.4	-79

Nadia	32.9	-21	59.0	-1	7.1	-81
24 Pargana (N)	10.0	-82	29.4	-57	6.4	-89
Purulia	14.1	-66	73.5	24	1.6	-97
24 Pargana (S)	32.0	-36	44.4	-55	25.4	-63
West Midnapore	2.5	-94	22.5	-64	18.9	-68
SHWB & Sikkim						
Cooch Behar	46.9	-59	216.7	114	41.6	-39
Darjeeling	143.4	34	96.2	-8	15.1	-80
East Sikkim	129.2	83	66.1	-6	16.1	-70
Jalpaiguri	180.0	45	181.0	80	36.3	-50
Malda	44.2	-10	119.7	42	11.5	-81
North Dinajpur	83.8	7	125.2	-5	10.8	-68
North Sikkim	182.3	119	226.6	225	41.1	-61
South Dinajpur	112.2	76	63.2	-3	6.4	-90
South Sikkim	109.3	55	55.6	-21	31.0	-42
West Sikkim	**	**	**	**	**	**
Karnataka						
Coastal Karnataka						
Dakshina Kannada	52.9	-10	84.0	22	5.5	-93
Udupi	65.0	-10	105.1	12	10.1	-88
Uttara Kannada	45.3	-17	86.4	56	5.2	-92
N I Karnataka						
Bagalkote	37.1	-11	42.5	-2	2.8	-94
Belagavi	21.3	-34	28.9	-23	13.8	-68
Bidar	121.3	209	235.9	415	91.9	184
Dharwad	14.5	-64	8.3	-76	18.8	-56
Gadag	19.6	-53	24.1	-43	9.9	-78
Haveri	16.5	-50	15.7	-52	8.9	-76
Kalaburgi	105.3	116	112.5	131	28.8	-31
Koppal	25.3	-49	32.2	-18	29.2	-29
Raichur	112.9	167	59.6	54	5.0	-89
Vijayapura	85.1	98	25.6	-48	11.8	-75
Yadgir	84.8	78	68.0	39	9.1	-81
S I Karnataka						
Ballari	18.0	-62	19.5	-45	1.3	-97
Bangalore Rural	7.7	-87	12.7	-69	9.8	-83
Bangalore Urban	14.3	-75	6.2	-87	5.4	-90
Chamarajanagar	8.1	-80	9.5	-75	1.6	-96
Chikaballapur	12.0	-76	6.8	-82	5.2	-90
Chikkamagaluru	29.3	-32	40.9	-17	2.1	-96
Chitradurga	14.3	-59	29.0	-16	0.0	-100
Davangere	23.9	-43	43.4	31	20.8	-51
Hassan	3.8	-89	4.6	-88	16.4	-60
Kodagu	37.1	-20	69.9	46	4.9	-92
Kolar	9.9	-80	3.5	-90	9.5	-79
Mandya	1.8	-95	20.6	-50	19.1	-54
Mysuru	2.8	-91	7.7	-77	2.6	-93
Ramanagara	7.2	-89	9.4	-82	6.1	-89
Shivamogga	56.0	81	101.9	189	11.9	-75

Tumakuru	11.0	-77	6.8	-85	3.6	-93
Kerala						
Alappuzha	9.9	-84	12.1	-85	42.1	-40
Kannur	69.2	74	39.2	-25	0.9	-99
Ernakulam	27.6	-59	13.4	-84	4.6	-94
Idukki	28.5	-55	36.0	-60	29.5	-66
Kasaragod	36.1	-29	47.2	-24	1.0	-98
Kollam	19.8	-61	4.3	-94	5.3	-92
Kottayam	20.7	-64	5.7	-93	19.3	-74
Kozhikode	49.4	-3	30.3	-57	2.3	-97
Malappuram	35.7	-22	22.6	-62	2.3	-96
Palakkad	38.6	11	24.5	-55	1.9	-97
Pathanamthitta	21.7	-63	5.3	-94	24.5	-67
Thiruvananthapuram	3.8	-89	5.4	-90	1.2	-97
Thrissur	24.0	-59	21.5	-74	1.2	-99
Wyand	14.1	-72	33.2	-30	3.0	-95
Tamil Nadu						
Ariyalur	0.0	-100	0.0	-100	37.5	7
Chennai	83.3	199	0.1	-99	96.7	149
Coimbatore	17.8	-15	3.8	-83	2.7	-88
Cuddalore	4.1	-89	3.0	-91	25.2	-24
Dharmapuri	1.5	-97	0.5	-99	8.0	-82
Dindigul	0.5	-98	0.4	-99	8.1	-78
Erode	0.9	-97	1.2	-96	5.3	-84
Kanchipuram	43.5	18	19.7	-46	87.0	124
Kanyakumari	0.4	-98	2.3	-93	0.3	-99
Karikal	0.0	-100	0.0	-100	22.7	-24
Karur	0.1	-99	0.0	-100	6.6	-77
Krishnagiri	1.3	-98	0.3	-99	3.0	-94
Madurai	9.1	-72	1.6	-95	15.6	-59
Nagapattinam	4.8	-81	0.2	-99	9.4	-69
Namakkal	0.8	-98	1.9	-94	12.3	-62
Nilgiris	8.6	-78	9.4	-77	7.6	-81
Perambalur	0.0	-100	0.5	-98	34.0	13
Puducherry	17.5	-42	53.8	120	40.4	5
Pudukottai	11.6	-63	0.7	-98	4.7	-85
Ramanathapuram	0.1	-99	1.2	-94	4.6	-77
Salem	0.4	-99	0.1	-99	4.8	-89
Sivaganga	7.0	-68	19.2	-29	4.2	-85
Thanjavur	2.8	-91	1.5	-95	51.9	64
Theni	0.7	-96	0.4	-99	1.8	-92
Tirunelveli	0.0	-100	0.0	-100	0.0	-100
Tirupur	12.3	-39	0.7	-97	0.0	-100
Tiruvallur	76.6	151	0.7	-98	38.3	-2
Tiruvannamalai	4.0	-92	15.4	-58	56.0	48
Tiruvarur	1.6	-94	2.1	-92	50.1	64
Toothukudi	0.1	-99	0.0	-100	0.0	-100
Trichy	0.8	-98	0.3	-99	33.2	-10

Vellore	17.9	-63	2.7	-93	30.3	-24
Villupuram	8.6	-81	22.9	-32	49.5	40
Virudhunagar	0.0	-100	2.0	-92	4.7	-84
Andhra Pradesh						
Coastal Andhra Pradesh						
East Godavari	35.0	-14	99.9	104	34.6	-36
Guntur	48.7	54	123.3	175	46.5	14
Krishna	66.7	83	89.2	83	51.5	18
Nellore	20.8	-28	7.6	-77	6.4	-83
Prakasam	18.6	-36	27.3	-34	6.8	-84
Sirkakulam	48.1	-13	125.2	176	78.5	49
Visakhapatnam	64.7	37	124.6	184	44.7	-26
Vizianagram	79.5	41	137.1	193	49.8	3
West Godavari	74.9	94	124.8	155	28.6	-44
Royalaseema						
Anantapur	11.0	-75	15.6	-54	6.2	-85
Chittoor	12.7	-68	2.7	-92	28.2	-32
Cuddapah	50.8	33	21.6	-34	12.3	-66
Kurnool	64.8	74	51.6	27	13.1	-67
Telangana						
Adilabad	48.9	27	147.6	309	37.0	44
Hyderabad	142.0	239	112.5	146	23.9	-8
Karimnagar	61.4	59	186.2	377	13.3	-51
Khammam	37.9	6	125.6	203	37.4	-1
Mehabubnagar	68.4	94	87.4	98	12.0	-65
Medak	95.9	105	265.3	633	65.2	134
Nalgonda	53.9	55	130.0	212	23.7	-32
Nizamabad	76.9	109	336.1	804	56.5	95
Rangareddy	92.9	119	136.5	184	10.3	-67
Warangal	98.4	169	211.3	540	5.8	-79

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

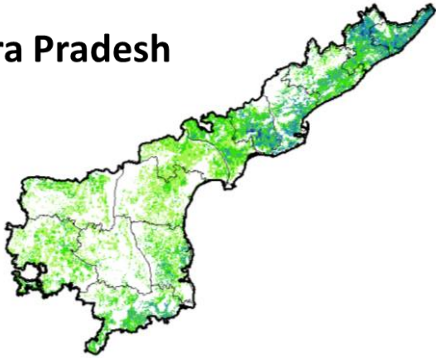
* (For Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Kerala, Odisha, Rajasthan Gujarat and Jammu& Kashmir rainfall actual and departure values are for period 29.09.2016 to 05.10.2016 and for rest of the sub divisions rainfall actual and departure values are for period 01.10.2016 to 05.10.2016)

Annexure II

NOAA/AVHRR NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON

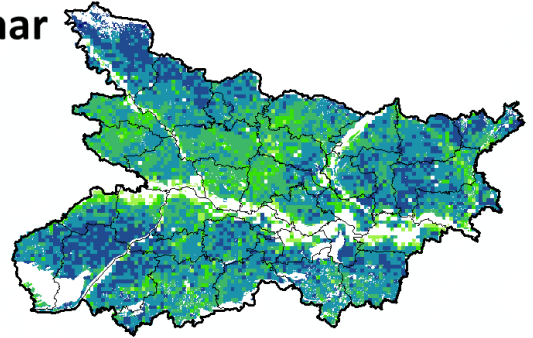
6th October 2016 FOR DIFFERENT STATES

Andhra Pradesh



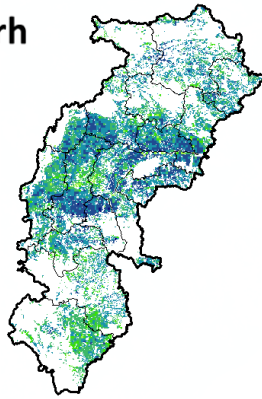
Agriculture vigour is moderate over central and southern part whereas, northern coastal parts show good NDVI in the state of Andhra Pradesh.

Bihar



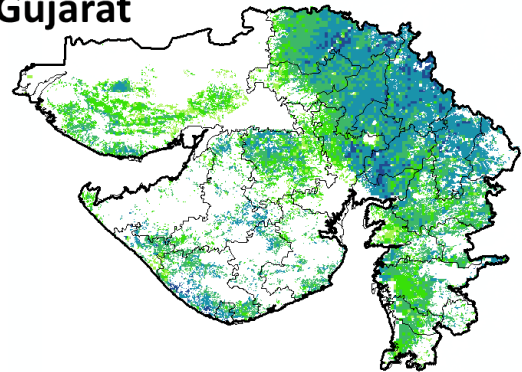
Agriculture vigour is moderate over few patches in central parts of Bihar whereas southern and northern part shows good to very good NDVI values

Chhattisgarh



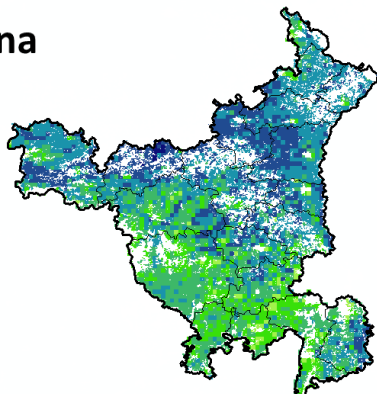
griculture vigour is moderate in southern region whereas, good vigour is seen in central and northern region of Chhattisgarh.

Gujarat



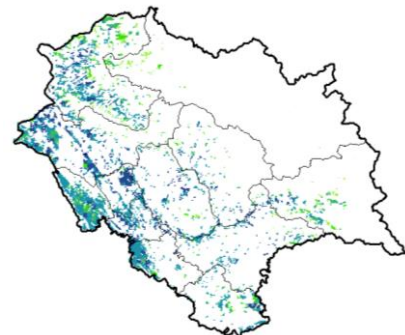
Moderate NDVI values are observed in patches in Saurashtra region whereas, good to very good NDVI is observed in Gujarat.

Haryana



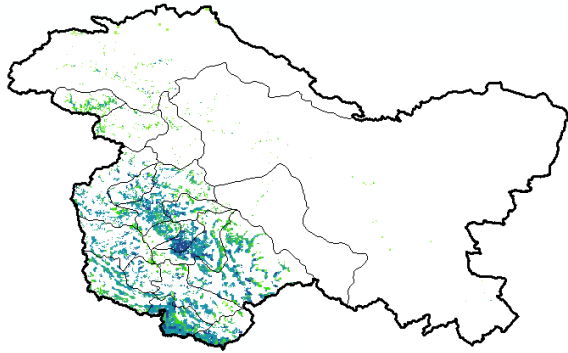
Agriculture vigour is moderate in patches over southern region whereas, good & very good agriculture vigour is observed in rest of the state.

Himachal Pradesh



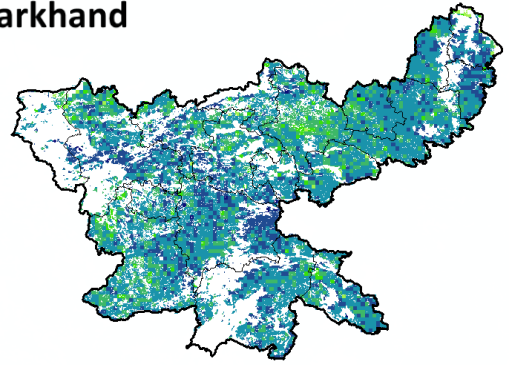
Agriculture vigour is good to very good over southern parts of Himachal Pradesh.

Jammu & Kashmir



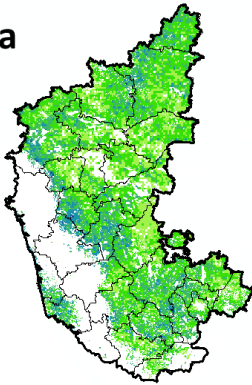
Agriculture vigour is good to very good over south western part of Jammu & Kashmir, whereas the remaining region shows moderate NDVI.

Jharkhand



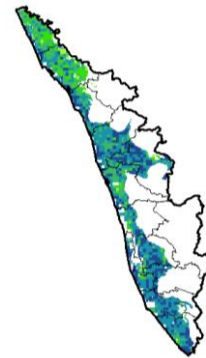
Agriculture vigour is very good over few patches in central region of Jharkhand whereas, remaining states shows good NDVI values.

Karnataka



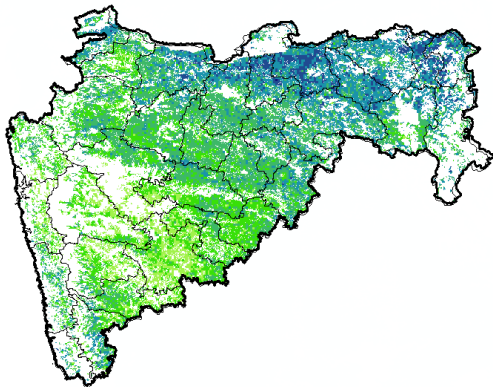
Agriculture vigour is moderate over northern region of the state whereas good vigour is observed in the central and patches in southern regions.

Kerala



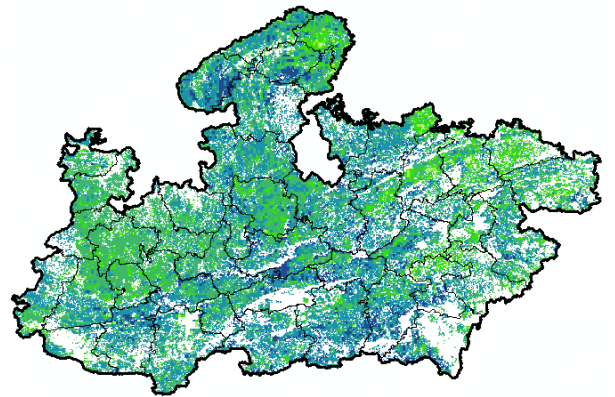
Agriculture vigour is good over entire state of Kerala except northern part which shows moderate NDVI values.

Maharashtra



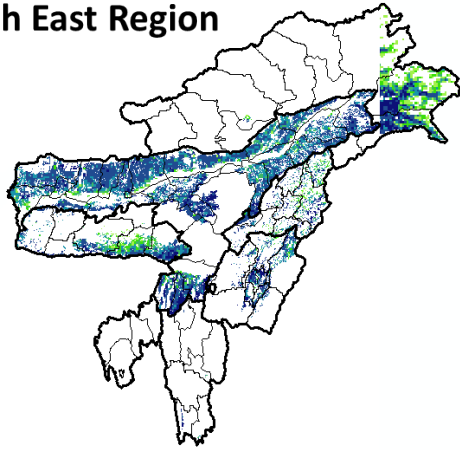
Agricultural vigour is moderate over coastal and central Maharashtra whereas, good to very good vigour is observed in the north and eastern regions.

Madhya Pradesh



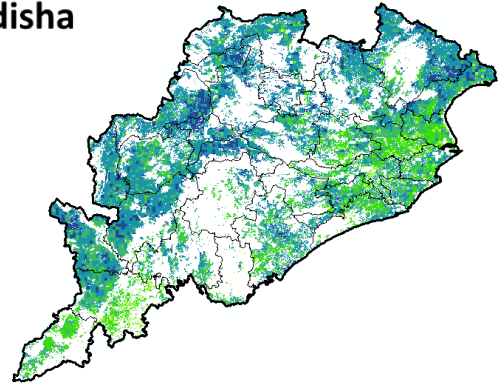
Agriculture vigour is moderate over patches in eastern region of the state of Madhya Pradesh whereas, good & very good vigour is observed over central, western and northern region.

North East Region



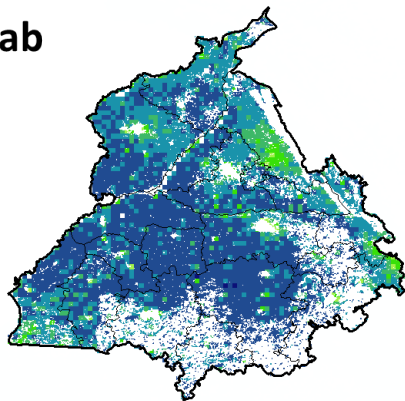
Agriculture vigour is good & very good over north-east states of country.

Odisha



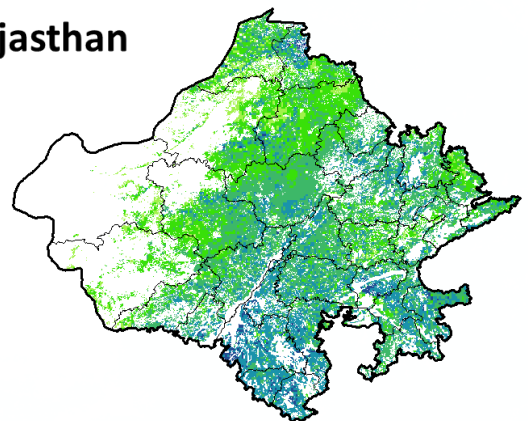
Agricultural vigour is moderate over coastal region of Odisha whereas, good to very good vigour is observed in western region.

Punjab



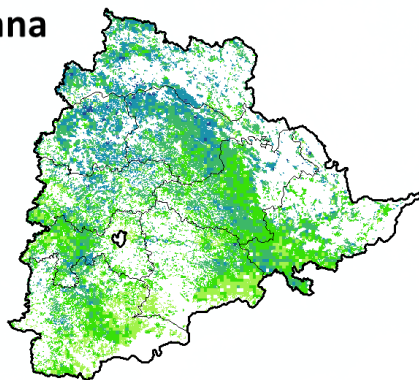
Agricultural vigour is very good over the entire state of Punjab.

Rajasthan



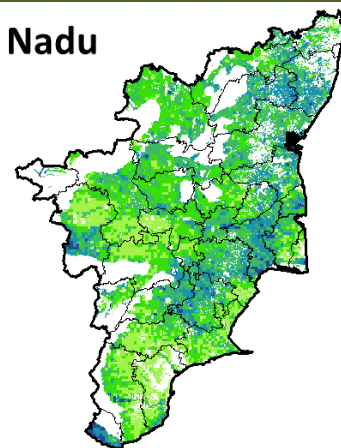
Agriculture vigour is moderate over western Rajasthan whereas, good vigour is observed over central and eastern region.

Telangana

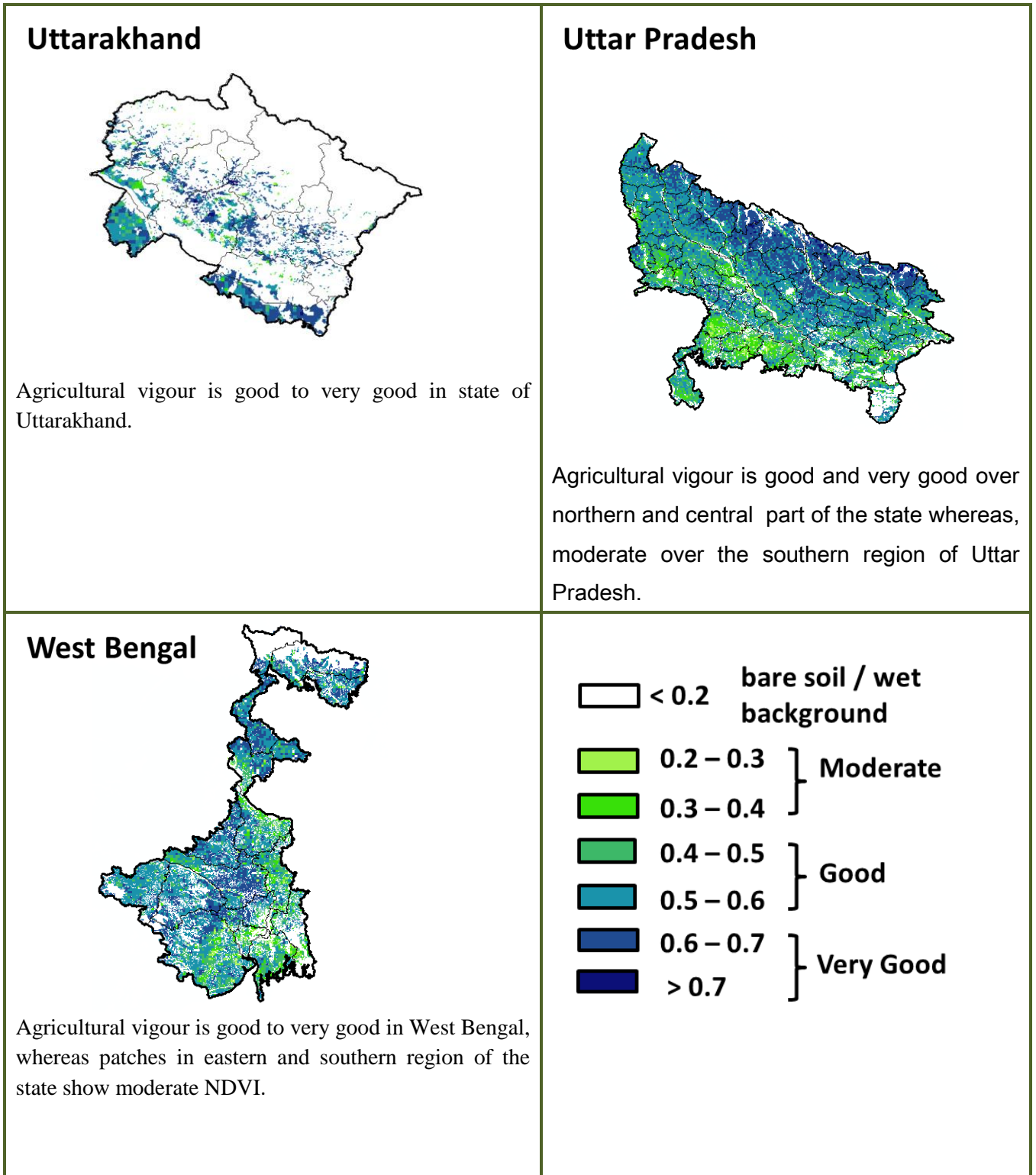


Agriculture vigour is good to moderate over entire state of Telangana whereas, good vigour is observed in patches in the north western region.

Tamil Nadu



Agricultural vigour is good in patches of northern, southern and central part of Tamil Nadu, whereas rest of the part shows moderate NDVI.



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

Annexure III

Assam

Okra: Pusa Sawani, Arka Anamika, Parbhdani Kranti..

Cauliflower : Early Kunwari, Pusa Ketki, Pusa Dipali.

Winter brinjal: Pusa Kranti, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, Pant Samra.

Pumpkin: Arke Suryamukhi, Arka Chandan.

Radish : Pusa Desi, Pusa Chetki.

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).

Brinjal : Cluster, Barbengena, JC-1, Kuchia, Pusa Kranti, Pusa Purple Long (for long varieties).

Pusa Purple Round, Pusa Vairab, JC-2, BWR-12 (round varieties).

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).

Manipur

Pea : Arkel.

Tripura

Tomato: Trishul, Allrounder, T- 1408, T- 1458, Anup.

Cauliflower: CFL- 4048, Pusa early synthetic, Kamaya, Suhasihi.

Cabbage: BC- 76, Pusa Drum Head, Pusa Synthetic.

Broccoli: Everest, Ayeshwaria.

Bihar

Pigeon pea:- Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13.

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

West Bengal:

Mango: Himsagar, Mallicka, Langra

Guava: Safeda, L-49

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

Pea: Vivek 10, Vivek 11, Pant 3,

Radish: Meenu early, Japanese white, Pusa Himani.

Carrot: Pusa Vrishi,

Jammu and Kashmir

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

Kharif Maize: ganga-11, sartaj, H.Q.P.M.-5, H.Q.P.M.-8, Pro-316, Bio-9681, Wai-1402 K, Prabhat, hybrid varieties G-1, 5 and selective varieties of Tarun, Navin, Kanchan, Sweta and Jaunpuri for early sowing.

Rice: Narendra-359, Malvia dhan-36, Narendra dhan-2026, Narendra dhan-2064, Narendra dhan-2065, Narendra dhan-3112, Sarju-52, Pant dhan-4, seeta, Jalamagna, jalanidhi, jalparia, chakia 59.

Hybrid varieties : Pro. Agro-6444(2001) Eraese, P.H.B.-71, Narendrasankar dhan-2,3, K.R.H.-2, P.R.H.-10, U.S.-312, R.H.-312, V.S.R.-202, R.H.-1531,

Scented varieties: Type-3, Pusa basmati-1, Malvia sugandh-105, Malvia sugandh-4-3, Narendrasugandh or Nendrausar dhan-1, Nendrausar dhan-2, C.L.R.-10, or Nendrausar dhan-2008

Turmeric: Kasturi, Paspu, Amlapuram, Madhukar, Sugna, Rajendra

Ginger -suprabha, suruchi, surbhi and Himgiri

Urad Bean: Pant U-19, Azad URD-1, KU 91-2, Shekhar-1, KU-301

Arahar: Bahar, Amar, Narendra Arahar-1,2, pusa-2001, pusa-991, pusa-992, parasmanak, UPAS 120.

Moong: Type-27, 56

Toria: TA-9, Bhawani, PT-30, PT-507, TA-36, PT-303.

Potato: Kufarichandramukhi, Kufarisadabahar, or KufriAshoka.

Mustard: Narendra ageti, rai-4, Varuna (T59), Basti (Pili), rohini, Maya, Narendra swarna-rai-8(pili), Narendra rai (NDR-8501), vaibhav.

Kabuli gram: chamatkar, Puse-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, Japni Safed, pusa Chetaki, Pusa Himani, Pusa deshi, Arka Nishant and Jaunpuri.

West Uttar Pradesh

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

Baby corn: M.H.-4.

Toria: bhavani

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

Punjab

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

Rice: Pusa-44, T.R-112 and T.R-113.

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.

Rice: Hybrid varieties: K. R. H 2, PHB 71, Pant hybrid Dhan1, Narendra hybrid dhan 1, P R H 10

High yielding varieties: Pusa 44, Pant Dhan-4, Pant Dhan-10, Pusa-834, Pusa basmati-1, Pusa basmati-1509, Pusa improved basmati, Pusa sugandha-5, Pusa sughanda-4 (Pusa 1121), Ranvir basmati and Taravadi basmati.

Pigeon pea: Pusa 2001, Pusa 992, Paras, Manak.

Maize: PMH1, Parbhat, PMH2

Paddy : PR-124, PR-123, PR-121, PR-122, PR-114, PR 113, PR-126, PR-115.

Okra: Punjab-8 and Punjab-7

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

Delhi

Oat : J.H.O-822, O.L.-9, Pusa oat-5.

Barseem: Vardan, Buland Barseem-1, Masakavi, J.B-3;

Radish: Japni White, Hill queen, French Radish;

Spinach: Pusa Bharti.

Amaranth: PusalalChaulai, PusaKiran.

Ladyfinger: Pusa A-4.

Radish: Japni White, Hill queen, French Radish.

Spinach: All Green, Pusa Bharti;

Fenugreek: Pusa Kasuri;

Coriander: Pant Haritama, Hybrids.

Turnip: Pusa Swati, Local Red variety.

Bottle Gourd- Pusa Naveen, Pusa Samridhi

Bitter Gourd- Pusa Visesh, Pusa-2 mosumi

Pumpkin- Pusa Visvash, Pusa Vikash

Ridge Gourd- Pusa Chikni

Cucumber- Pusa Uday, Pusa Barkha

East Rajasthan:

pearl millet: HHB 67, HHB 60, Raj 171, ICMH 356 and ICTP 8201 (improved varieties)

Raj-171, ICTP-8203, RHB-173, RHB-177, RHB-121, HHB-67 (improved varieties)

Sorghum: CSH-6, CSH-9, CSV-10, CSV-15.

TG37-A, DH-86, Pratap Mungfali-1.

Rice: P.R. 106, B.K.190, Mahisugandha (Basmati)

kharif onion: N-53 & Agrifound dark red

Maize: Aravali Makka-1, Pratap Makka-1, Pratap Makka-5, Pratap Hybrid Maize-1, Pratap Hybrid Maize-2 and bio-9637. Hybrid varieties are-MahiDhawal, 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, MahiKanchan
Greengram:RMG-62, RMG-268. RMG-492 & RMG-344, IPM-02-3.
Cowpea: FS-68, RC-19 and RC-101.
Moth: RMO-40,IPCMO-912, RMO-257, RMO-225, RMO-435 (Vikash) (improved varieties)
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: PusaKeshar is improved variety.
Mustard: Pusa jai kisan, RH-30, Pusa bold, Laxmi, kranti.

Radish: Japanese white & hill queen.

West Rajasthan

Pearl millet: R.H.B.-177, ICTP-8203, RHB-121, RHB-173, RHB-154, GHB-538, HHB-67(improved varieties)
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.
Sorghum: Girnar-2, RG-425, HNG-10, GG-20, TG-37-A, TG-39.
Narma cotton:R.S.T.-9, R.S.-810, R.S.-2013, Bikanerinarma, R.S.875, MaruVikas(Raj. H.H.16)
BT Narma cotton:M.R.C.H.6304, M.R.C.H.6025, R.C.H.650, Bioseed-6588, Bioseed-6488, R.C.H.-314, J.K.C.H. 1947, M.R.C.-7017 (BG-II) or N.E.C.H.6.
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)
Radish: Japanese white & hill queen.

Marathwada:

Rabi jowar : Maldandi (M-35 – 1), SPV-655, SPV-839, Phule Yashoda, Parbhani Moti, Swati.

Karnataka

Sorghum: DSH-4, M-35-1, Muguthi, DSV-4, DSV-5, Maldandi , CSV-29R, SPV-2217.
Safflower : A-1, A-2, S-144.
Niger : No.71, RCR-18.
Ragi: GPU 45, 48 and Indaf 9.
Cowpea: KBC-1, 2.
Field bean: Hebbal Avare.
Rabi sorghum: Maldandi Muguti, DSV-4, DSV-5, BJV-44 varietyor Hybrid-DSH- 4),
Chickpea: A-1, GBS-964, JG-11, BGD-103, GB-1105, Annigeri-1, BG-1105, JG-1.
Wheat: DWR-162, DWR-225, DWR-185, DWR-2006, DDK-1001, DWR-137.

Andhra Pradesh

Sorghum:CSH-9,CSH-13,CSH-14,PSV-15,PSV-19
Bajra:ICTP 8203,PBH 3
Korra:Prasad, Krishnadevaraya, Narashimharaya, Srilakshmi, Surya nandi
Cowpea: C 152 GC3 CO-4 CO-5
Sunflower:NDSH1 KBSH1 KBSH 44 DRSH 1
Green gram:LGG 407 LGG 450 LGG 460 MGG 295 ML 267
Field bean:TFB-1 TFB-5

Tamil Nadu

Samba rice:CR 1009 and ADT 50.

Telangana

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