



National Agromet Advisory Service Bulletin

Friday 14th October 2016
(For the period 14th to 18th October 2016)



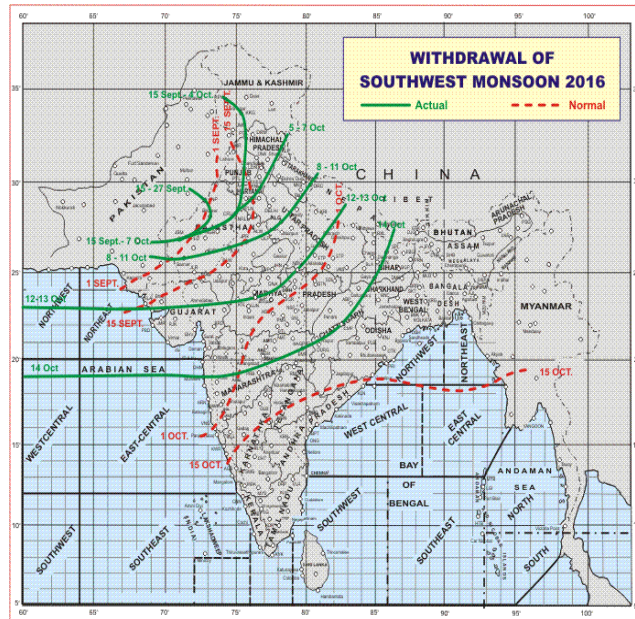
Issued by
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.

Weblink For

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

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

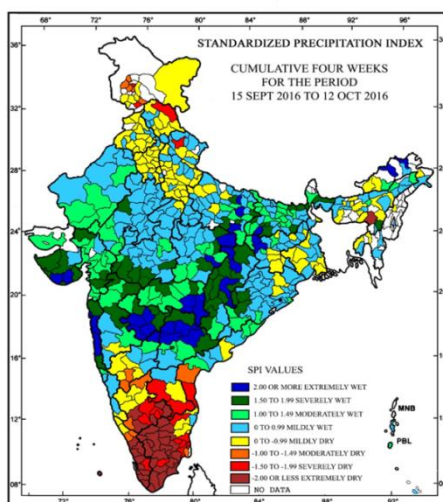
Monsoon Watch



- The southwest monsoon has further withdrawn from remaining parts of east Uttar Pradesh, Madhya Pradesh, Gujarat state and north Arabian Sea and some parts of Bihar, Jharkhand, Chhattisgarh, Vidarbha, Marathawada, Madhya Maharashtra, north Konkan (including Mumbai) and northern parts of central Arabian Sea.
- The withdrawal line of southwest monsoon continues to pass through Darbhanga, Gaya, Champa, Bramhapuri, Ahmadnagar, Mumbai, Lat. 19.0°N/Long. 70.0°E and 19.0°N/Long. 60.0°E.
- Conditions are favourable for further withdrawal of southwest monsoon from remaining parts of central India, some more parts of East & Peninsular India during next 48 hours.

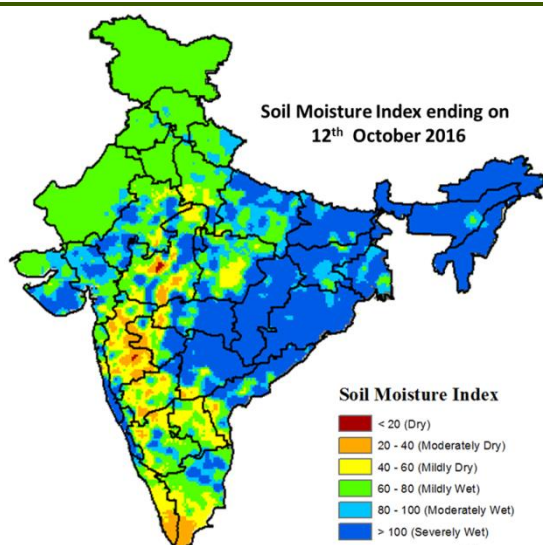
Standardised Precipitation Index Four Weekly for the Period 15th September 2016 to 12th October 2016

MINISTRY OF EARTH SCIENCES
INDIA METEOROLOGICAL DEPARTMENT
HYDROMET SECTION, PUNE



- Extremely/severely wet conditions experienced in most districts of Saurashtra, Kutch & Diu, Konkan & Goa, Chhattisgarh; many districts of Telangana; few districts of Arunachal Pradesh; Gujarat, Maharashtra; Cachar district of Assam; Jalpaiguri district of West Bengal; Bolangir, Kalahandi, Nawapara districts of Odisha; Palamu, Latehar districts of Jharkhand; Araria, Aurangabad, Banka, Buxar, Gaya, Jahanabad, Kishanganj, Supaul, Arwal districts of Bihar; Allahabad, Azamgarh, Ballia, Basti, Mirzapur, Sant Kabir Nagar, Varanasi districts of Uttar Pradesh; Ajmer district of Rajasthan; Dhar, Hoshangabad, Khandwa, Khargone, Burhanpur, Alirajpur, Dindori, Mandla, Rewa, Shahdol, Singrauli districts of Madhya Pradesh and Bidar district of Karnataka.
- Extremely/Severely dry conditions experienced in most districts of Tamil Nadu & Puducherry; few districts of Karnataka; Kerala; Jaintia Hills district of Meghalaya; Garhwal Tehri district of Uttarakhand; Lahaul & Spiti district of Himachal Pradesh; Udampur, Srinagar districts of Jammu & Kashmir; Nellore district of Andhra Pradesh and Lakshadweep.
- Moderately dry conditions experienced in few districts of Jammu & Kashmir; Prakasam district of Andhra Pradesh; Tiruvarur district of Tamil Nadu & Puducherry; Gadag, Haveri, Bellary, Kodagu districts of Karnataka; Kozhikode and Wynad districts of Kerala.
- Rest of the country experienced moderately wet mildly dry/mildly wet conditions.

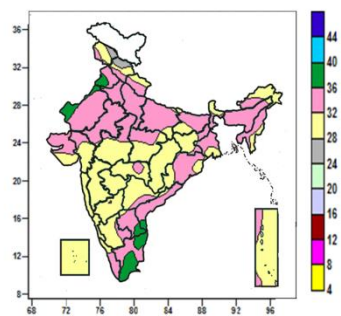
Soil Moisture Index for the week ending on 12th October 2016



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

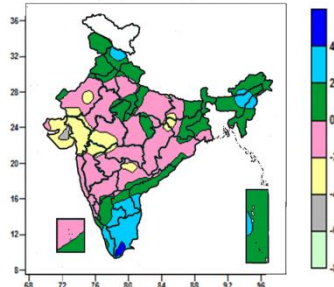
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 12.10.2016

Actual Mean Maximum Temperature (°C) in India for the week ending 12.10.2016



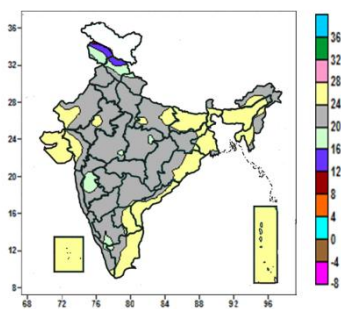
- Mean maximum temperature was between 36 to 40°C over some parts of Punjab, West Rajasthan, Rayalaseema, Tamil Nadu and isolated pockets of Haryana and Coastal Andhra Pradesh.
- Mean maximum temperature was between 28 to 36°C over rest of the Country except some parts of Jammu & Kashmir and Himachal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

Mean Maximum Temperature (°C) Anomaly in India for the week ending 12.10.2016



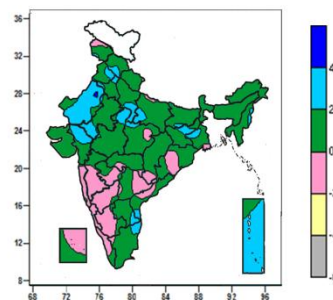
- Mean maximum temperature was above normal by 4 to 6°C over isolated pocket of Tamil Nadu.
- Mean maximum temperature was above normal by 2 to 4°C over many parts of Nagaland, Rayalaseema, Tamil Nadu, Kerala, some parts of Himachal Pradesh, Assam, Coastal Andhra Pradesh, South Interior Karnataka and isolated pockets of Arunachal Pradesh, Manipur and Andaman & Nicobar Islands.
- It was normal to near normal over rest of the country except many parts of Gujarat, some parts of West Rajasthan, West Madhya Pradesh, Telangana, Madhya Maharashtra and isolated pockets of Bihar, Jharkhand, Chhattisgarh, East Rajasthan, Vidarbha and Marathwada, where it was below normal by 2 to 4°C and some parts of Saurashtra & Kutch and isolated pockets of Gujarat Region where it was below normal by 4 to 6°C.

Actual Mean Minimum Temperature (°C) in India for the week ending 12.10.2016



- Mean minimum temperature was between 8 to 12°C over isolated pocket of Jammu & Kashmir.
- Mean minimum temperature was between 12 to 16°C over some parts of Jammu & Kashmir and Himachal Pradesh.
- Mean minimum temperature was between 16 to 20°C over many parts of Jammu & Kashmir, Himachal Pradesh, some parts of Madhya Maharashtra, South Interior Karnataka and isolated pockets of Uttarakhand, Madhya Pradesh, Kerala and Tamil Nadu.
- Mean minimum temperature was between 20 to 28°C over rest of the country.

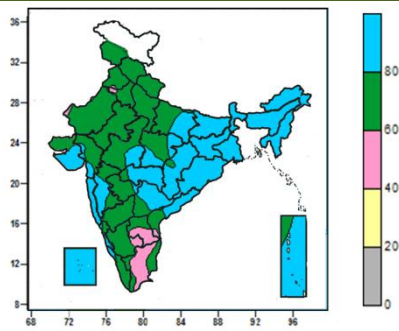
Mean Minimum Temperature (°C) Anomaly in India for the week ending 12.10.2016



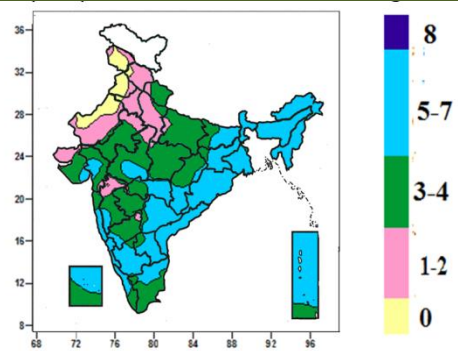
- Mean minimum temperature was above normal by 4 to 6°C over isolated pocket of West Rajasthan.
- Mean minimum temperature was above normal by 2 to 4°C over many parts of West Rajasthan, Andaman & Nicobar Islands, some parts of Himachal Pradesh, Punjab, Haryana, East Rajasthan, Jharkhand, Uttar Pradesh, West Madhya Pradesh, Rayalaseema, Tamil Nadu and isolated pockets of Gangetic West Bengal, Jammu & Kashmir, East Madhya Pradesh, Bihar and Coastal Andhra Pradesh.
- 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 12.10.2016

Relative Humidity (%) over India for the week ending 12.10.2016



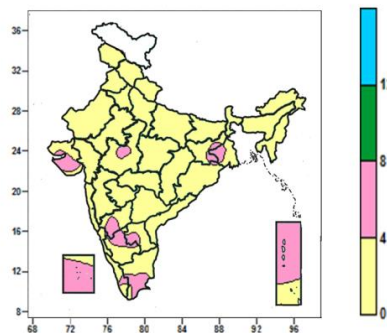
Cloud amount (okta) over India for the week ending 12.10.2016



- Mean Relative Humidity was above 80% over North East India, West Bengal & Sikkim, Bihar Jharkhand, Odisha, Konkan & Goa, Lakshadweep, many parts of Saurashtra & Kutch, Vidarbha, Chhattisgarh, Madhya Maharashtra, Telangana, Coastal Andhra Pradesh, Coastal Karnataka, Andaman & Nicobar Islands, some parts of East Uttar Pradesh, Madhya Pradesh, Gujarat Region, and isolated pockets of Marathwada, North Interior Karnataka and Kerala.
- Mean Relative Humidity was between 60 to 80% over rest of the country except many parts of Rayalaseema, Tamil Nadu, some parts of South Interior Karnataka and isolated pockets of Punjab, Haryana, West Rajasthan and Coastal Andhra Pradesh, where it was between 40 to 60%.

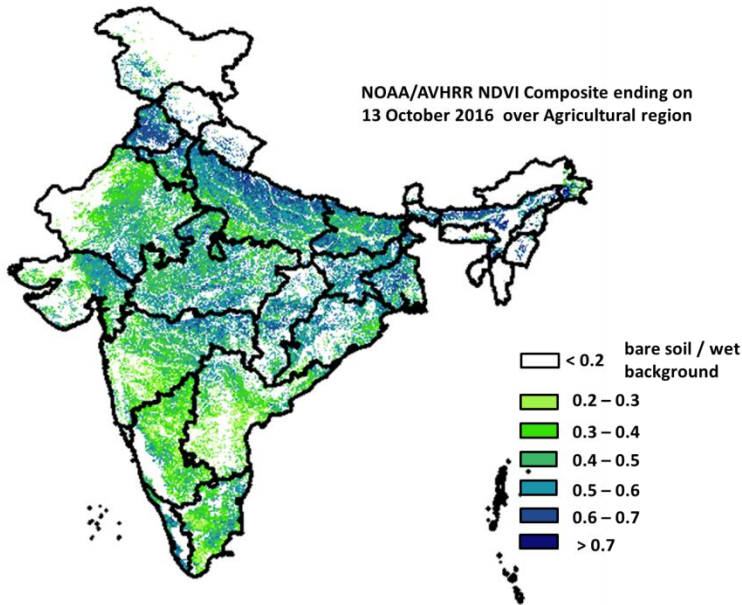
- Sky remained generally cloudy (5-7okta) over North East India, Sub-Himalayan West Bengal & Sikkim, Odisha, Coastal Andhra Pradesh, Coastal Karnataka, many parts of Bihar, Jharkhand, Gangetic West Bengal, Vidarbha, Telangana, Konkan & Goa, South Interior Karnataka, Rayalaseema, Kerala, Andaman & Nicobar Islands, some parts of Chhattisgarh, Gujarat, West Madhya Pradesh, Madhya Maharashtra, North Interior Karnataka, Tamil Nadu, Lakshadweep and isolated pockets of East Madhya Pradesh and Marathwada.
- Sky remained partly cloudy/mainly clear (3-4/1-2 okta) over rest of the Country except many parts of Jammu & Kashmir, Punjab, some parts of Himachal Pradesh, West Rajasthan and isolated pockets of Haryana, Madhya Maharashtra, where it was clear sky (0 okta).

Wind speed (knots) over India for the week ending 12.10.2016



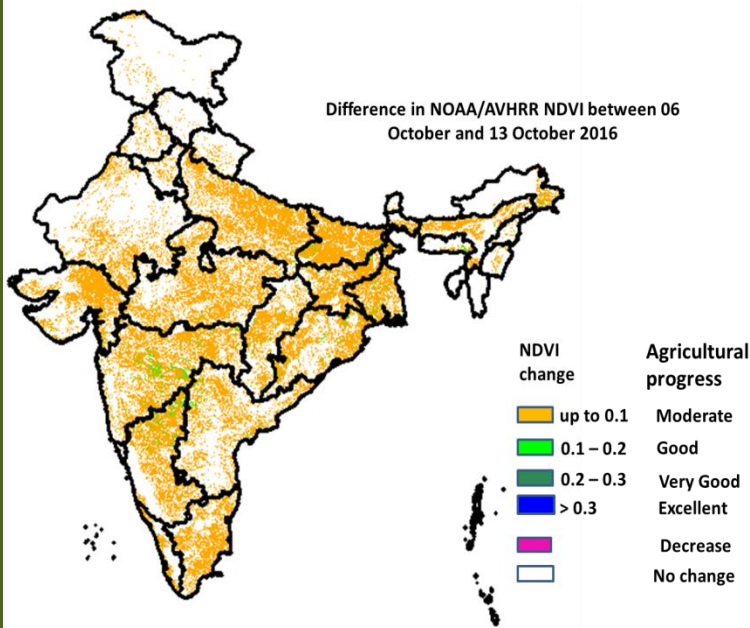
- Mean wind speed was between 0 to 4 knots over the country except many parts of Saurashtra & Kutch, Lakshadweep, Andaman & Nicobar Islands, some parts of Jharkhand, Gangetic West Bengal, Interior Karnataka, Rayalaseema, Kerala, Tamil Nadu and isolated pockets of Odisha, West Madhya Pradesh and Coastal Karnataka, where it was between 4 to 8 knots.

NOAA/AVHRR NDVI composite ending on 13th October 2016 over Agricultural region of India



- Agricultural vigour is very good in Punjab, Haryana, patches in Uttar Pradesh, patches in Madhya Pradesh, Bihar, Odisha, West Bengal, Vidarbha region and North-east where, NDVI values 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 6th October and 13th October 2016



- Good progress was observed in patches in Maharashtra, Karnataka and West Bengal 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, Odisha, Andhra Pradesh and Tamil Nadu.

- NOAA/AVHRR NDVI composite maps for the week ending on 13th October 2016 for different States are given in Annexure II.

Weather Forecast for next 5 days valid upto 0830 hours of 19th October 2016

- Meteorological sub-division wise detailed 5 day rainfall forecast is given below.
- Maximum and minimum temperatures likely to fall by 1-2°C over plains of northwest India and adjoining central India during next 2-3 days.

5 Day Rainfall Forecast (MID DAY) 14th October 2016

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

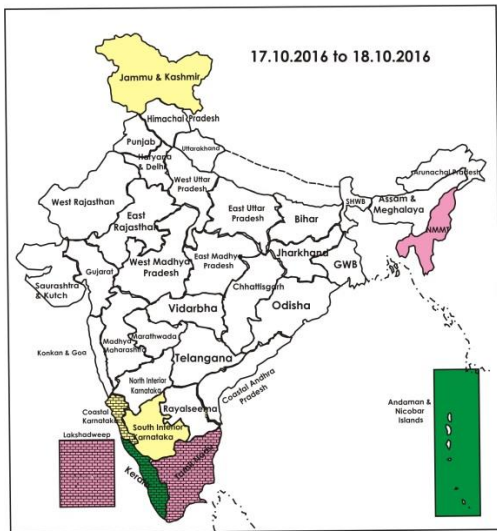
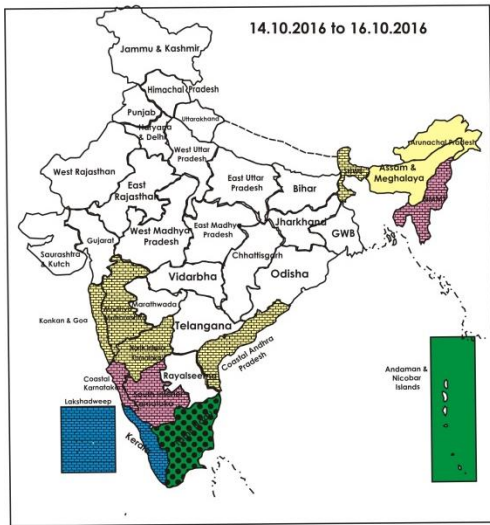
Weather Warning during next 5 days

- **14 October (Day 1):** Heavy to very heavy rain at isolated places very likely over Kerala; heavy rain at isolated places over South Interior Karnataka, Tamilnadu & Pudducherry and Lakshadweep.
- **15 October (Day 2):** Heavy rain at isolated places very likely over Kerala & Lakshadweep.
- No weather warning from 16th to 18th October.

Weather Outlook for subsequent 2 days from 19th to 21st October 2016

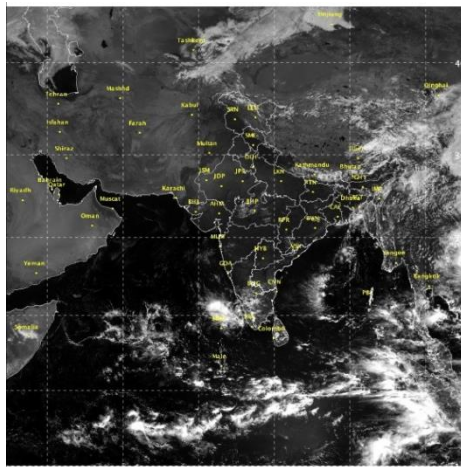
- Rain at many places very likely over extreme south Peninsular India, Lakshadweep, Andaman & Nicobar Islands and at isolated places over rest peninsular India.

Weather Forecast Map (valid upto 0830 hours 19th 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, 14.10.2016, 0600 UTC



Salient Advisories

- As rain/thundershowers likely at **most/many places** over Kerala from 14th to 17th, at **many places** over Tamil Nadu on 14th Oct. and over Andaman & Nicobar islands during the period, 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/heavy to very heavy rain** very likely at isolated places over Kerala on 14th & 15th and **heavy rain** very likely at isolated places over South Interior Karnataka and Tamil Nadu on 14th Oct., provide adequate drainage in standing crop fields to avoid water stagnation.
- Utilizing the realised rainfall, continue land preparation and sowing of toria, rapeseed and mustard in **Bihar** and **Chhattisgarh** and sowing of rainfed mustard and sesame in **Odisha**. Continue sowing of mustard and Bengal gram in **North Saurashtra** and **North Gujarat**. Undertake sowing of rainfed gram, mustard and taramira in **East Rajasthan** and undertake land preparation and sowing of gram, pea and mustard in East Uttar Pradesh. Continue sowing of rabi jowar, safflower and gram (rainfed) in **Madhya Maharashtra** and **Marathwada**. Continue sowing of toria, rapeseed and mustard in **Assam**. Continue transplanting of *Samba* rice in Cauvery Delta Zone and Southern Zone in **Tamil Nadu**.
- As rain is expected at many places in **Kerala** from 14th to 16th Oct., complete harvesting of *virippu* rice after current spells of rain.
- As dry weather would prevail during the period, continue harvesting of soybean, sesame and bajra in **North Interior Karnataka**, soybean and pulses in **Madhya Pradesh** and rice, soybean in **Chhattisgarh**, groundnut, black gram, green gram, sesame and soybean in **South Saurashtra** and **North Gujarat** and pulses in **South Gujarat**, continue harvesting of maize, sorghum, pulses, green gram in **East Rajasthan** and harvesting of pearl millet, moong, moth bean in **west Rajasthan**, continue harvesting of rice and pulses in **Himachal Pradesh**, rice and maize in **Jammu & Kashmir** and **Uttarakhand**. In **Coastal Andhra Pradesh**, continue harvesting of groundnut, mesta and ragi and harvesting of groundnut, bajra and korra in **Royalaseema**.

Detailed Zonewise Agromet Advisories

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



Banana



Rice



Sugarcane



Red gram

- **Realised Rainfall:** Rainfall occurred in all districts of Coastal Karnataka, Bidar and Dharwad districts of North Interior Karnataka, Chitradurga, Ramanagara and Shivamogga districts of South Interior Karnataka, Kozhikode district of Kerala, Cuddalore, Dharmapuri, Kanchipuram, Nagapattinam, Tiruvannamalai and Villupuram districts of Tamil Nadu, all districts of Coastal Andhra Pradesh except Nellore and Prakasham, all districts of Telangana except Mehabubnagar. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at many places over Kerala from 14th to 17th and over Tamil Nadu on 14th 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 Kerala on 14th & 15th and heavy rain at isolated places over South Interior Karnataka and Tamil Nadu on 14th Oct., provide adequate drainage in standing crop fields to avoid water stagnation.
 - **Kerala:**
 - In North and Central Zone, continue harvesting of matured *Virippu* rice and nursery sowing of *Mundakan* rice after current spells of heavy rain.

- In Idukki and Wynad districts of High Altitude Zone, undertake land preparation for sowing of Bhindi, Amaranthus and planting of Banana after current spells of heavy rain; continue harvesting of cardamom in clear weather.
- In Central Zone, continue land preparation and sowing of vegetables after current spells of heavy rain.
- In Thiruvananthapuram district, to control fugal disease on tapping panels of rubber plants, undertake spraying of Indofil M 45 @ 4g per litre of water. Undertake plant protection methods of after current spells of rain.
- **Andhra Pradesh:**
 - In North Coastal Zone, continue harvesting of groundnut, mesta and ragi. Continue sowing of maize.
 - In Southern Zone, continue nursery sowing of medium duration rice varieties like MTU-1010, MTU-1001, NLR-34449 and MTU-1121 and land preparation for sowing of *Rabi* red gram and other pulses. Undertake harvesting of green gram and black gram in Nellore district.
 - 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 @ 1.5g or Cartap Hydrochloride @ 2g per litre 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 and Helicoverpa incidence was noticed in groundnut at few parts of Anantpur district, to control, undertake spraying of Acephate @ 1.5g/litre of water.
 - In Kadapa district of Southern Zone, present weather conditions are favorable for leaf spot disease in turmeric, to control, undertake spraying of Carbendizem @ 1 g or Mancozeb @ 2.5 g /litre of water.
- **Telangana:**
 - 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 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 @ 2g 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 nursery sowing of Late samba/Thaladi season rice (varieties ADT 38, ADT 46, ADT 49, improved white Ponni, TRY 3 and TKM 13). Continue transplanting of *Samba* rice. Complete harvesting of *Kuruvai* rice after current spells of rain.
 - 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 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 Nilgiri district of High Altitude Hilly Zone, in coffee, coco, rubber and coconut plantations, undertake cultivation of vegetable cowpea (Co-2) as intercrop.
 - 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 g per acre with 200 litre of water on a non rainy day.
 - In South Zone, in the prevailing weather condition i.e. slight cloud cover and high humidity, there is possibility of incidence of whitefly in cotton . To control this pest, set up yellow pan traps and sticky traps 12/ ha or spray Imidachlopid @ 100 ml/ha.
- **Karnataka:**
 - In Bidar district of North East Transition Zone, continue sowing of Bengal gram, continue sowing of sorghum, safflower, niger under optimum soil moisture condition.
 - In Chamrajnagar, Mandya, Kodagu and Mysuru districts of Southern Dry Zone, continue sowing of minor millets like Foxtail millet, Kodo millet, prosomillet, ragi, jowar, maize and pulses like Avare, cowpea after receipt of sufficient rainfall. Maintain 3-5 cm water level in rice fields.
 - 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. Continue harvesting of matured sesame and bajra in clear weather; keep harvested produce at safer place.
 - 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.
 - 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.
 - 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 Tricyclozal @ 0.6 g/litre of water on a non rainy day.
 - Pod borer attack is noticed in short duration pigeon pea crop in North East Transition Zone, spray Profenophos @ 2 ml or Thiodicarb 0.6 g or Methomyl 0.6 g per litre of water on a non rainy day for control.
 - Suitable varieties for sowing are given in Annexure III.
- ❖ **Animal Husbandry**
- In the Southern Zone and North Eastern Zones of Tamil Nadu, vaccinate dairy animals and cattle against hemorrhagic septicemia & black quarter. In western Zone, prevailing climate is conducive for mastitis disease in milch animals. Hence, clean the udder with 1% KMnO₄ before and after milking.
 - In Scarce Rainfall Zone of Rayalaseema of Andhra Pradesh, vaccinate sheep in time against sheep pox and keep them in dry sheds.
 - 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 Changlang, Dibang Valley, East Kameng, East Siang, Lohit, Lower Dibang Valley, Papumpara, Tawang, West Kameng and West Siang districts of Arunachal Pradesh, Baksa, Barpeta, Bongaigaon, Cachar, Chirang, Dhemaji, Dhubri, Dibrugarh, Goalpara, Golghat, Hailakandi, Jorhat, Kamrup(Rural), Kamrup(Metro), Karbi Anglong, Karimganj, Kokrajhar, Lakhimpur, Morigaon, Nowgaon, Nalbari, Sonitpur, Sibsagar, Tinsukia, Udalgiri districts of Assam, East Garo Hills, East Khasi Hills, Ri-Bhoi, South Garo Hills, West Garo Hills, West Khasi Hills districts of Meghalaya, Aizwal, Lunglei and Saiha districts of Mizoram, Imphal East, Imphal West and Thoubal districts of Manipur, Kohima, Phek and Wokha districts of Nagaland and North Tripura, South Tripura and West Tripura districts of Tripura. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Assam, Meghalaya & Arunachal Pradesh:**
 - In Dhemaji, Lakhimpur, Sonitpur, Dibrugarh, Golghat, Jorhat and Sibsagar districts of Upper Bramhaputra Valley Zone of Assam, continue land preparation and sowing of toria and planting of potato and nursery sowing of early cauliflower, radish, brinjal and
 - In Karimganj, Hailakandi and Cachar districts of Barak Valley Zone of Assam, continue nursery raising for winter vegetables, land preparation and 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. Undertake land preparation for sowing of rapeseed/mustard.
 - In Barpeta, Bongaigaoin, Dhubri and Goalpara districts of Lower Bramhapurtra Valley Zone of Assam, continue sowing of pumpkin, radish, onion, planting of early potato and nursery preparation of cabbage, cauliflower.
 - In North Bank Plain Zone of Assam, continue land preparation and sowing of rapeseed/mustard, sowing of Knol-khol and nursery sowing of brinjal and tomato. Farmers are advised to adopt relay cropping with pea in the rice field. 20- 25 days before harvesting the sali paddy, suitable varieties of pea such as T-136, bonneville etc. should be sown maintaining a spacing of 30cm x 10cm.
 - In Meghalaya, continue nursery sowing/transplanting of cauliflower/cabbage/broccoli. Repair bunds to retain

standing water in Sali/kharif rice.

- In Arunachal Pradesh, continue nursery sowing of winter vegetables and sowing of pea. Complete sowing of black gram and green gram in rice fallow of *jhum* fields.
- In Arunachal Pradesh, there is chance of attack of shoot grub at citrus at fruiting stage. Incorporate Clothianidin 50 WDG @ 4g/plant in base region of the plant against shoot grub.
- In Central Brahmaputra 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.
- In Hill Zone of Assam, spray Rogor 0.05% against infestation of shoot borer in turmeric and ginger. Also spray Bavistin @ 0.5g/litre of water against infestation of Cercospora leaf spot in black gram and green gram at vegetative stage.
- In North Bank Plain Zone of Assam, to control rice bug infestation at milky and dough stage of Sali rice above ETL, apply Malathion 5% dust @ 20 kg/ha.
- In Meghalaya, to control gandhi bug in upland rice at milky to dough stage, spray Imidacloprid 17.8 SC @ 2ml/litre of water and Chloropyrifos @ 0.02% or Monocrotophos @ 0.04% against stem borer.
- **Nagaland, Manipur, Mizoram and Tripura:**
- In Nagaland, complete harvesting of *Jhum* rice and soybean on clear weather 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 land preparation for nursery raising of cole crops/onion. Continue land preparation for planting of potato.
- In Mizoram, continue harvesting of *khasi* mandarin/acid lime, passion fruit, banana, *kharif* maize and sowing of green gram, black gram and French bean. Undertake nursery raising of onion.
- In Tripura, continue land preparation for planting of potato and transplanting of early winter vegetables such as cabbage, radish, brinjal etc. Drain out water from the fields of aman rice at maturity stage. Undertake land preparation and sowing of sesame.
- In Nagaland, spray Streptocycline 2g/5litre of water against bacterial blight in TRC/WRC rice.
- In Manipur, to control leaf blotch and leaf spot disease in ginger/turmeric, spray Carbendazim @ 0.1% or spray Mancozeb 2.5 g/litre on a non rainy day.
- 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 banana rhizome weevil disease in banana on a non rainy day.
- Suitable varieties for sowing are given in Annexure III.
- ❖ **Animal Husbandry**
- In Assam, keep animals indoor during heavy rainfall period. 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



Land preparation/Sowing

- **Realised Rainfall:** Rainfall occurred in Mumbai Suburban, North Goa, Ratnagiri, Sindudurg and South Goa districts of Konkan & Goa, Kolhapur district of Madhya Maharashtra, Hingoli, Nanded and Parbhani districts of Marathwada, all districts of Vidarbha except Akola and Buldhana, in Ahmedabad, Aravalli, Gandhinagar, Kheda, Mahisagar, Mehsana, Narmada, Navsari, Surat and Valsad districts of Gujarat region, Amreli. Batod, Gir Somnath, Junagarh and Porbandar districts of Saurashtra & Kutch. Weather remained mainly dry over rest of the region.

- **Advisories:**

▪ **Maharashtra:**

- In Konkan, maintain water level of 8-10 cm in rice fields at grain filling stage by bunding the fields. Undertake harvesting of early maturing rice and groundnut. For controlling branch drying disease in mango orchards, cut the infected branch below 15 cm from the point of infection and apply Bordeaux paste on cut surface. Spray 1% Bordeaux mixture on branches and inside the canopy. Continue sowing of cowpea, bhendi and brinjal.
- In Madhya Maharashtra, complete harvesting of matured soybean. Undertake harvesting of groundnut. Continue sowing of *rabi* jowar, Bengal gram and safflower. Maintain water level of 8-10 cm in rice fields at grain filling stage in Western Ghat Region. Continue intercultural operations, application of fertilizers and plant protection measures in sugarcane and vegetable crops like onion, brinjal, tomato, okra and guar. Complete preparatory tillage and undertake planting of pre seasonal sugarcane. Continue October pruning in vine yards.
- In Marathwada, continue intercultural operations, application of fertilizers and plant protection measures in vegetables, orchards and sugarcane. Complete harvesting of matured soybean. Continue sowing of *rabi* jowar (varieties Maldandi (M-35 – 1), SPV-655, SPV-839, Phule Yashoda, Parbhani Moti, Swati), Bengal gram and safflower.
- In Vidarbha, maintain 5-7 cm water level in rice fields of late sown /long duration varieties in Nagpur, Bhandara, Gondia, Chandrapur and Gadchiroli districts. Continue sowing of Bengal gram and safflower. Complete harvesting of matured soybean. Undertake harvesting of groundnut. Continue intercultural operation, application of fertilizers and plant protection measures in rice and vegetables.
- Due to rise in temperature and partly cloudy weather conditions in Marathwada, there may be attack of thrips in pomegranate; spray Thiamethoxam 25 WG @ 3 g/10 litres or Acetamiprid 20 SP @ 3 g/10 litres of water.
- Due to light rain in Konkan region, there may be incidence of downy mildew disease in cucurbitaceous crops, spray Metalaxyl + Mancozeb WDG 3 gm per litre of water on both side of leaves.

▪ **Gujarat:**

- In Rajkot, Amreli, Jamnagar and Surendranagar districts of North Saurashtra Zone, continue sowing of mustard, gram and garlic at optimum soil moisture conditions and harvesting of groundnut and picking of cotton. 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. 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, continue sowing of mustard, gram and *rabi* 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.
- 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 cattle to protect them from foot and mouth disease in Maharashtra.
- Spray phenyl in the animal sheds 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 North & Middle Andaman district of Andaman & Nicobar Islands, Bankura, Birbhum, Burdwan, East Midnapore, Hooghly, Kolkata, Murshidabad, Nadia, North 24 Parganas, Purulia, South 24 Parganas and West Midnapore districts of Gangetic West Bengal, Cooch Behar, Darjeeling, Jalpaiguri and Malda, districts of Sub-Himalayan West Bengal and East Sikkim, North Sikkim and South Sikkim districts of Sikkim, all districts of Bihar except Bhojpur, Gopalganj, Madhubani, Sheohar and Sitamarhi, all districts of Jharkhand except Chatra, Deogarh, Koderma, Palamu, Sahebganj, Saraikeela and West Singhbhum, all districts of Odisha. Weather remained mainly dry over rest of the region.

- **Advisories:**

- **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. Continue harvesting of early sown kharif groundnut. Make 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 Streptomycin 1 g along with 20 g Copper oxy chloride in 10 litres of water.
- 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.
- 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 Chloropyrifos or 1.5 ml Phosphamidon in 1 litre of water and repeat the spraying after 15 days of first spraying.
- In East and South Eastern Coastal Plain Zone and North Central Plateau Zone, stem borer infestation and Bacterial Leaf Blight is noticed in rice. Spray Triazophos or Chloropyrifos @ 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 Beas and 1.5 g Hinosan in 2 litres of water twice at 15 days interval.

- **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 milky/dough stage stage.
- In Laterite and Red Soil Zone, drain out water from the rice fields at maturity stage 10days before harvesting.
- 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, there is chance of attack of stem borer and rice hispa and BPH in Aman rice. Apply Chloropyrifos 2.5ml / Triazophos 2ml per litre of water against rice hispa and apply 0.75 ml Nuvan or Vapona per litre of water or dust Quinalphos 1.5%/ Carbaril 4% at lower portion of the stem if the number of insect is more than 15 per plant.
- 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/litre of water, Use light trap during night and for leaf eating caterpillar attack, Spray Chlorpyrifos @ 1.5ml/litre of water.
- 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, due to the present weather condition, there is chance of neck blast disease in rice, to control, spray Ediphenphos 50% E.C. @ 1ml/litre of water against neck blast. To control shoot & fruit borer and other foliage feeder pest in bhindi & brinjal, spray Biorine/ Dispel 1kg formulation diluted in 300 litres of water per acre.
- In Terai Zone, for control of blast/brown spot, sheath blight in rice, apply Tricyclazole @ 0.75g/litre of water against blast/ brown spot and Validamycin @ 2ml/litre of water against sheath blight. Also to control aphids, white fly, jassid and mosaic in legume vegetables, apply Thiamethoxam @ 1g/3 litre or Acetamiprid @ 1ml/litre of water.

- **Andaman and Nicobar Islands:**

- As rain/thundershowers likely at many places over Andaman and Nicobar Islands during the period, do not apply irrigation, application of plant protection measures and fertilizers to the standing crops.
- In North, South and Middle Andaman, as the weather is conducive attack of stem borer in rice at ripening stage, set up light traps to attract borers moth during night time. Apply second dose of neem coated urea @ 25 kg/ha to the rice fields after current spells of rain.

- **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 Carbendazin @ 2g/kg of seed. Maintain 5 cm standing water in rice fields. Continue harvesting of matured kharif maize crop on a non rainy day.
- In Darbhanga, East Champaran, Gopalganj, Samastipur, West Champaran districts of North West Alluvial Plain

Zone, undertake sowing of mustard, rapeseed, sunflower, lentil, pea, rajma and garlic, land preparation for sowing of *rabi* crops and planting of sugarcane.

- 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, there is chance of attack of stem borer and blast in rice, spray Cartap 4% granules or Carbofuran 3% G @ 10 kg/acre or Chlorpyrifos 20 EC @ 2 ml/litre of water if population of stem borer is above ETL. Also spray Bavistin @ 2 g/litre of water against blast.

▪ **Jharkhand:**

- In Western Plateau Zone, in fallow uplands, continue sowing of kulthi, niger, early potato and green peas. 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, spray Diclorvos 76 EC (DDVP) @ 1 ml/litre of water.
- 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. 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.
- 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 areas, maize crop is affected by fruit borer. Spray neem based insecticide @ 2-3 ml. per liter of water on upper part of the plant 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 Terai Zone of West Bengal, vaccinate cattle against BQ and HS (BQ, HS Vaccine/ HS+BQ).

CENTRAL INDIA [M.P., CHHATTISGARH]



Maize



Rice



Soybean



Land preparation/Sowing

- **Realised Rainfall:** Rainfall occurred in Damoh, Mandla, Narsinghpur, Panna, Sagar, Singrauli and Tikamgarh districts of East Madhya Pradesh, in Agar, Ashoknagar, Betul, Bhopal, Datia, Dhar, Hoshangabad, Khargone, Neemuch and Vidisha districts of West Madhya Pradesh, all districts of Chhattisgarh except Baloda Bazar. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - In Gwalior, Bhind, Morena, Guna, Ashoknagar and Shivpuri districts, continue sowing of toria and undertake land preparation and sowing of mustard and planting of potato.
 - In Chhindwara and Betul districts, continue nursery preparation for tomato, chilli, brinjal and nursery sowing of cabbage, cauliflower and sowing of garlic, coriander etc. Continue harvesting of matured maize, green gram, black gram and soybean.
 - In Vindhyan Plateau Zone, continue harvesting of matured soybean, green gram and black gram. Keep inputs ready for sowing of *rabi* crops.
 - In Tikamgarh, Chhatarpur and Datia districts, continue sowing of radish, fenugreek, spinach, coriander and turnip and harvesting of matured green gram, black gram and soybean. Continue seed bed preparation for sowing of onion and field preparation for sowing of potato and garlic. Undertake sowing of linseed and mustard under rain

fed condition. Keep inputs ready for sowing of *rabi* crops like pea, chickpea and lentil.

- In Indore and Ujjain districts, continue harvesting of soybean and maize. Continue nursery preparation for early winter vegetables, onion and field preparation for sowing of potato, pea and garlic. Continue transplanting cauliflower and cabbage.
- In Jhabua, Alirajpur and Dhar districts, continue harvesting of matured green gram, black gram, maize and medium variety of soybean. Continue picking up of okra, brinjal and chilli and nursery preparation for winter vegetables and field preparation for pea and gram. Undertake field preparation and sowing of mustard.
- In Jabalpur, Rewa, Satna districts, continue sowing of mustard and pea and harvesting of matured soybean, urad and moong.
- In Gwalior, Bhind, Morena, Guna, Ashoknagar, Shivpuri districts, Pigeon pea (arhar) crop is at pod development stage there may be attack of pod borer insect, to control, spray Triazophos @ 750ml/ha in 500 to 600 litres of water.

▪ **Chhattisgarh:**

- In North Chhattisgarh, continue transplanting of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc., continue sowing of *rabi* crops like toria, mustard, green pea and potato. Complete harvesting of maize, rice, groundnut, finger millet in clear weather. Undertake sowing of radish, turnip, spinach and carrot.
- In Central Chhattisgarh, continue land preparation for sowing of *rabi* crops like chickpea, linseed, toria etc. Continue 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 and repeat after 10-12 days as per requirement.
- Suitable varieties for sowing are given in Annexure III.

❖ **Animal Husbandry**

- In Chhattisgarh, provide concentrate feed to milch animals mixed with dry and green fodder and insure for enrich diet having protein, carbohydrate, fat, vitamins etc.
- In Madhya Pradesh, present weather condition is suitable for breeding of buffalo. Therefore farmers are advised to incorporate minerals salts and vitamins in their feed.

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



Groundnut

Maize

Rice

Land preparation/Sowing

- **Realised Rainfall:** Rainfall occurred in Allahabad, Bahiraich, Ballia, Balrampur, Barabanki, Basti, Faizabad, Fatehpur, Gazipur, Gonda, Gorakhpur, Kanpur city, Kanpur Dehat, Kheri, Lucknow, Maharajganj, Pratapgarh, SantKabirnagar, Siddharthnagar, Sonbhadra, Sultanpur, Unnao of East Uttar Pradesh; in Auriaya, Hamirpur, Jalaun, Jhansi of West Uttar Pradesh, in Ajmer, Banswara, Baran, Chittorgarh, Karauli, Rajsamand, Sawai Madhopur, Udaipur districts of East 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 and onion. In Jaisalmer and Bikaner districts, undertake sowing of mustard and gram in irrigated areas and undertake land preparation for sowing of fodder crops like Lucerne, Berseem, oat.
- In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, undertake land preparation for sowing of *rabi* crops and select suitable varieties of wheat, mustard, potato and lentil for sowing. Continue sowing of radish, apply 20 kg nitrogen, 48 kg phosphorus and 48 kg potash/ha as basal dose.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganaganagar, undertake sowing of mustard, gram. Continue harvesting of matured guar. Apply irrigation to paddy, narma and desi cotton crops as per requirement.
- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, undertake sowing of early pea, rainfed gram, taramira and mustard. Undertake sowing of desi carrot and radish. Use 30 kg nitrogen, 40 kg phosphorus and 120 kg potash at the time of sowing of Desi carrot and remaining 30 kg nitrogen 45 days after sowing.

- In Jaipur, Ajmer, Tonk and Dausa districts of Semi-Arid Eastern Plain Zone, prevailing weather condition is congenial for attack of leaf curl & mosaic disease in chilli, for control, uproot & burn the affected plants and spray Malathion 50 EC @ 1 ml per litre 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 g 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 g 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, continue harvesting of matured rice crop, maize and mash pods. Undertake sowing of berseem as fodder for animals. Undertake nursery sowing of late cauliflower (Snow Ball Group) and onion crop and sowing of leafy vegetable like spinach, methi and coriander.
 - In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, harvest the early maturing varieties of rice. Undertake thinning and hoeing in 15-20 days old toria crop. Undertake harvesting of matured maize, bajra, moong and mash. 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, methi, garlic and berseem.
 - In Cold Arid Zone, farmers are advised to undertake harvesting of matured vegetable crops. Undertake transplanting of cabbage, cauliflower, KnolKhol, Kale, broccoli and lettuce before first fortnight of October in greenhouses. Transplant roots of spinach beet for early harvest. Direct seed sowing of spinach, turnip & radish should be done in greenhouses.
 - 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. Undertake transplanting of onion, knol khol, cabbage, cauliflower and broccoli.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone of Jammu and Kashmir, farmers are advised to sprinkle the nursery beds of vegetable (Cole) crops with 0.2% Bavistine solution (2g/litre of water) to control damping off.
 - In Cold Arid Zone of Jammu and Kashmir,cover the trenches and low tunnels with polythene in the night to avoid loss due to sudden temperature dip below <2 deg. Celcius.
 - 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 Udhm Singh Nagar district of Bhabar and Tarai Zone, undertake harvesting of early and mid season variety of paddy and harvesting of maize cob. Continue sowing of mustard crop and apply half dose of Nitrogen as top dressing after 4-5 days of irrigation at 20 days after sowing. Continue tansplanting of late variety of cauliflower and weeding and hoeing in the brinjal crop
 - In Tehri Garhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, give light irrigation to toria crop which is 20-25days old in mid and high altitude region. Continue nursery raising of onion crop. Undertake sowing of carrot, spinach, methi, dhanial and radish. Give light irrigation to all vegetable crops.
 - 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. Undertake nursery raising of medium maturing cabbage and cauliflower.
 - In high altitude areas of Tehri Garhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, undertake land preparation for sowing of wheat. Complete sowing of spinach, radish, carrot, fenugreek and coriander.
 - In Bhabar and Tarai Zone, continue sowing of potato of varieties Kufri Ashoka or Kufri Jyoti. Undertake picking up of capsicum, tomato from the polyhouse.
 - In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, under prevailing weather conditions there is possibility of incidence of hopper, shoot borer, blight and blast attack on paddy crop and downy mildew on cucurbitaceous crops.Take proper plat protection measures to minimize the damage due to above pest/disease.
- **Himachal Pradesh:**
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, continue harvesting of matured pulses and rice. Continue land preparation and sowing of mustard, early pea 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. Continue sowing of potato in lower and mid hill regions. Continue sowing of berseem, lucerne and oats for fodder.

Continue sowing of mushroom and maintain room temperature 18-22oC for successful cultivation of dhingri mushroom. Undertake nursery sowing of cauliflower (late group), cabbage, knol khol, broccoli and chinese cabbage and direct sowing of radish, carrot, turnip, palak and methi in mid hill areas.

- In Mid Hills Sub-Humid Zone of Himachal Pradesh, in Bilaspur, Solan, Shimla and Sirmaur districts, continue nursery sowing of cauliflower and transplanting of cabbage.
- In Mild Hills Sub-Humid Zone, in Kullu and Mandi districts apply Blitox @ 600 g. per 200 litres of water after harvesting of Apple and Pomegranate orchards.
- In Mild Hills Sub-Humid Zone, in Kullu and Mandi districts, present weather is conducive for attack of woolly aphids in Apple, for control spray Marshal @ 200ml per 200 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 white flies and other sucking pests in vegetables, for control Spray of Imidacloprid 17.8 % SC @ 1.0 ml per 3 litres of water.

▪ **Punjab, Haryana and Delhi:**

- In Punjab, in Fazilka, Ferozepur and Faridkot districts, farmers are advised to apply irrigation in rice at grain formation stage 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 and mid season pea varieties Punjab 89 and Mithi Phali.
- 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. Complete sowing of early varieties of potato and undertake sowing of “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 during last week of October.
- In Undulating Plain Zone, apply irrigation in vegetable nursery as per the requirement and undertake planting of sugarcane, cauliflower, cabbage and sowing of other seasonal vegetables.
- 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- Pusa pragati, Pant matar-3, Arkil etc). 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, mature seedlings of cauliflower, cabbage, broccoli and tomato may also be done in raised bed 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 copper oxychloride 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 than, 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.
- Weather is congenial for the attack of pod borer in moong and mash in Undulating Plain Zone of Punjab, apply Indoxacarb 14.5 SC @ 200 ml/acre to control the larvae.

▪ **Uttar Pradesh:**

- In Central Plain Zone of Uttar Pradesh, undertake land preparation and sowing of gram, pea, mustard and garlic, planting of sugarcane and potato. Continue sowing of toria, rabi maize, kabuli gram, vegetable pea and cabbage. Continue transplanting of mid season brinjal, tomato, cauliflower, tomato and capsicum. Undertake sowing of

- winter vegetable like spinach, fenugreek, coriander, carrot, radish etc. Undertake nursery sowing of cabbage.
- In Eastern Plain Zone of Uttar Pradesh, continue sowing of toria, potato, vegetable pea. Continue 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. Continue transplanting of late sowing brinjal, chilli, tomato, cabbage, cauliflower. Continue 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 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 Central Plain Zone of East Uttar Pradesh due to prevailing weather condition, there may be chances of attack of bacterial disease and bacterial blight in paddy, for control, spray Agromycin-100 @ 75 g or Streptocycline @ 15 gm or Copper oxychloride @ 500 g in 500-600 litres of water, 2 to 3 times at an interval of 10 days.
- 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 East Uttar Pradesh due to prevailing weather condition, there may be chances of attack of canker in lemon, for control spray Blitox @ 3 gm per litre of water.
- In Central Plain Zone of East Uttar Pradesh, undertake planting of papaya.
- In Central Plain Zone of East Uttar Pradesh due to prevailing weather condition, there may be chances of attack of mosaic in papaya, for control, spray Mencozeb @ 2 ml per litres of water.
- In Irrigated North Western Plain Zone of Rajasthan, there may be fruit drops in kinnow fruits, for control spray mixture of Carbendazim 50 WP @ 1 g per litre of water or Propineb 70 WP @ 2 g and Gibbrellic acid @ 20 mg 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 of Uttarakhand, give irrigation to newly transplanted orchard of Mango and Litchi.
- ❖ **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, undertake transplanting of seedlings of marigold and winter season annuals due to presence of sufficient moisture in soil.
- In Valley Temperate Zone of Jammu and Kashmir, complete sowing of nursery for spring flowering annuals at earliest.
- 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 Arid Western Plain Zone of Rajasthan, give deworming medicine against endoparasites to the livestock as per guidance of registered veterinarian.
- 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 Bhabar and Tarai Zone of Uttarakhand, to save the animals from Gal-Ghotu disease, keep them in neat and clean places. When symptoms of Gal-Ghotu disease appears, contact immediately the nearest Veterinarian for advice.
- In Rajouri, Ramban, Poonch and Udhampur districts of Jammu & Kashmir, Nomads are advised to vaccinate and deworm their sheep in order to avoid the economic losses caused by viral and parasitic diseases.
- ❖ **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 Uttarakhand, 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 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 | 28.09.16 | | 05.10.16 | | 12.10.16 | |
|------------------------------|-------------|--------|-------------|--------|-------------|--------|
| | Actual (mm) | % dep. | Actual (mm) | % dep. | Actual (mm) | % dep. |
| Arunachal Pradesh | | | | | | |
| Anjaw | ** | ** | ** | ** | ** | ** |
| Changlang | 100.6 | 58 | 2.5 | -98 | 45.2 | -32 |
| Dibang Valley | ** | ** | ** | ** | 190.0 | 344 |
| East Kameng | 33.7 | -50 | 9.7 | -68 | 28.2 | -34 |
| East Siang | 155.3 | 41 | 3.8 | -96 | 199.3 | 253 |
| Kurung Kumey | ** | ** | ** | ** | ** | ** |
| Lohit | 31.0 | -53 | 3.1 | -95 | 79.5 | 61 |
| Lower Dibang Valley | 64.8 | 19 | 0.0 | -100 | 343.5 | 703 |
| Lower Subansari | ** | ** | ** | ** | ** | ** |
| Papumpare | 211.6 | 87 | 5.9 | -92 | 132.8 | 125 |
| Tawang | 38.0 | -61 | 4.0 | -96 | 34.0 | -52 |
| Tirap | 108.8 | 39 | 6.8 | -93 | 10.4 | -80 |
| Upper Siang | 503.6 | 215 | 8.2 | -90 | 0.4 | -99 |
| Upper Subansari | 261.4 | 406 | 4.0 | -76 | 15.2 | -41 |
| West Kameng | 8.2 | -92 | 4.2 | -96 | 66.8 | -6 |
| West Siang | 86.8 | 56 | 2.5 | -91 | 107.4 | 211 |
| Assam & Meghalaya | | | | | | |
| Assam | | | | | | |
| Baksa | 24.2 | -75 | 0.6 | -99 | 51.2 | -9 |
| Barpeta | 71.3 | -25 | 10.1 | -77 | 79.3 | 42 |
| Bongaigaon | 26.8 | -73 | 12.6 | -78 | 57.4 | -10 |
| Cachar | 104.1 | 43 | 130.1 | 89 | 77.4 | 29 |
| Chirang | 47.8 | -53 | 10.0 | -82 | 71.0 | 12 |
| Darrang | ** | ** | ** | ** | ** | ** |

| | | | | | | |
|------------------|-------|------|-------|------|-------|------|
| Dhemaji | ** | ** | 0.0 | -100 | 144.0 | 208 |
| Dhubri | 58.9 | -24 | 14.1 | -81 | 128.6 | 151 |
| Dibrugarh | 59.9 | -2 | 12.2 | -76 | 93.4 | 134 |
| Goalpara | 58.0 | -30 | 0.0 | -100 | 63.6 | 25 |
| Golaghat | 36.1 | -11 | 9.8 | -58 | 31.3 | -6 |
| Hailakandi | 110.1 | 53 | 39.5 | -30 | 47.5 | -17 |
| Jorhat | 40.3 | -28 | 8.6 | -81 | 89.5 | 144 |
| Kamrup(Rural) | 24.0 | -45 | 0.4 | -99 | 30.1 | -13 |
| Kamrup(Metro) | 14.1 | -67 | 0.8 | -98 | 69.1 | 99 |
| Karbi Anglong | 30.5 | -23 | 5.5 | -79 | 20.8 | -39 |
| Karimganj | 93.1 | 24 | 51.5 | -30 | 193.9 | 91 |
| Kokrajhar | 91.1 | -24 | 10.9 | -78 | 112.6 | 112 |
| Lakhimpur | 113.2 | 19 | 5.8 | -89 | 156.9 | 235 |
| Morigaon | 73.0 | 28 | 42.4 | 101 | 134.5 | 165 |
| N.C.Hills | 58.2 | 5 | 9.4 | -76 | 15.7 | -57 |
| Nagaon | 26.1 | -46 | 9.9 | -71 | 33.6 | -17 |
| Nalbari | 62.1 | 70 | 0.0 | -100 | 22.2 | -31 |
| Sonitpur | 45.0 | 12 | 7.4 | -78 | 53.0 | 58 |
| Sibsagar | 63.6 | 65 | 10.1 | -65 | 69.7 | 170 |
| Tinsukia | 68.1 | 13 | 18.1 | -55 | 142.5 | 377 |
| Udalgiri | 16.5 | -55 | 10.5 | -67 | 60.3 | 86 |
| Meghalaya | | | | | | |
| East Garo Hills | 51.8 | -6 | 15.6 | -76 | 194.6 | 268 |
| East Khasi Hills | 54.0 | -47 | 26.9 | -74 | 111.2 | 14 |
| Jaintia Hills | 0.0 | -100 | 1.0 | -99 | 0.0 | -100 |
| Ribhoi | 74.1 | -1 | 8.9 | -73 | 48.2 | 70 |
| South Garo Hills | 6.0 | -90 | 7.0 | -89 | 221.0 | 245 |
| West Garo Hills | 100.8 | 69 | 0.0 | -100 | 61.4 | -4 |
| West Khasi Hills | 29.0 | -77 | 32.0 | -31 | 140.0 | 120 |
| NMMT | | | | | | |
| Mizoram | | | | | | |
| Aizwal | 76.8 | 0 | 75.3 | -16 | 69.9 | -13 |
| Champhai | ** | ** | ** | ** | ** | ** |
| Kolasib | ** | ** | ** | ** | ** | ** |
| Lawngtlai | ** | ** | ** | ** | ** | ** |
| Lunglei | 79.6 | -26 | 56.5 | -35 | 24.7 | -65 |
| Mamit | ** | ** | ** | ** | ** | ** |
| Saiha | 182.0 | 85 | 71.0 | -24 | 71.0 | 11 |
| Serchhip | 92.5 | 16 | 19.2 | -67 | 43.4 | -16 |
| Manipur | | | | | | |
| Bishnupur | ** | ** | ** | ** | ** | ** |
| Chandel | ** | ** | ** | ** | ** | ** |
| Churachandpur | ** | ** | ** | ** | ** | ** |
| Imphal east | 89.6 | 143 | 0.0 | -100 | 54.1 | 5 |
| Imphal west | 183.5 | 432 | 100.8 | 80 | 125.8 | 167 |
| Senapati | ** | ** | ** | ** | ** | ** |
| Tamenglong | ** | ** | ** | ** | ** | ** |
| Thoubal | 32.0 | 99 | 0.0 | -100 | 41.0 | 74 |
| Ukhrul | ** | ** | ** | ** | ** | ** |

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|-------------------------|------|------|------|------|-------|------|
| Nagaland | | | | | | |
| Dimapur | 25.7 | 41 | 8.6 | -77 | 0.2 | -99 |
| Kephire | 50.0 | -12 | 37.0 | -46 | 6.0 | -86 |
| Kohima | 30.9 | -36 | 29.4 | -27 | 56.5 | 51 |
| Longleng | ** | ** | ** | ** | ** | ** |
| Mokokchung | 25.0 | 28 | 4.0 | -93 | 16.0 | -49 |
| Mon | ** | ** | ** | ** | ** | ** |
| Paren | ** | ** | ** | ** | ** | ** |
| Phek | 24.0 | -51 | 19.0 | -53 | 20.0 | -47 |
| Tuensang | ** | ** | ** | ** | ** | ** |
| Wokha | ** | ** | 53.0 | 43 | 44.0 | -2 |
| Zunheboto | ** | ** | ** | ** | ** | ** |
| Tripura | | | | | | |
| Dhalai | 30.7 | -49 | 74.0 | 33 | ** | ** |
| NorthTripura | 53.6 | -8 | 21.3 | -61 | 38.1 | -41 |
| SouthTripura | 49.4 | -29 | 35.1 | -37 | 105.2 | 73 |
| West Tripura | 13.1 | -77 | 17.7 | -68 | 51.9 | -16 |
| Himachal Pradesh | | | | | | |
| Bilaspur | 15.4 | -50 | 1.5 | -86 | 7.7 | 13 |
| Chamba | 6.0 | -88 | 6.1 | -74 | 2.3 | -79 |
| Hamirpur | 29.6 | -18 | 0.2 | -99 | 0.0 | -100 |
| Kangra | 20.9 | -49 | 3.3 | -86 | 0.8 | -95 |
| Kinnaur | 10.4 | -53 | 0.0 | -100 | 1.7 | -86 |
| Kullu | 6.7 | -71 | 5.2 | -31 | 1.0 | -88 |
| Lahaul and Spiti | 1.0 | -97 | 0.0 | -100 | 0.0 | -100 |
| Mandi | 14.0 | -51 | 4.6 | -67 | 7.1 | -25 |
| Shimla | 10.1 | -59 | 3.6 | -62 | 2.9 | -73 |
| Sirmaur | 55.7 | 47 | 9.3 | -43 | 0.3 | -98 |
| Solan | 5.8 | -86 | 4.3 | -69 | 12.6 | -30 |
| Una | 36.5 | -13 | 6.9 | -66 | 0.5 | -94 |
| Punjab | | | | | | |
| Amritsar | 12.7 | -46 | 0.0 | -100 | 3.5 | -58 |
| Barnala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bhatinda | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Faridkot | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Fatehgarh Saheb | 0.3 | -99 | 0.0 | -100 | 0.0 | -100 |
| Ferozpur | 0.0 | -100 | 0.0 | -100 | 1.8 | -33 |
| Gurdaspur | 15.1 | -53 | 1.9 | -90 | 0.5 | -96 |
| Hoshiarpur | 2.3 | -94 | 1.2 | -94 | 1.0 | -88 |
| Jalandhar | 1.3 | -95 | 0.0 | -100 | 2.4 | -62 |
| Kapurthala | 3.2 | -84 | 0.0 | -100 | 0.3 | -97 |
| Ludhiana | 0.5 | -98 | 0.3 | -98 | 3.8 | -25 |
| Mansa | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Moga | 0.0 | -100 | 2.0 | -88 | 0.0 | -100 |
| Muktesar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Nawashahar | 21.3 | -52 | 0.0 | -100 | 14.5 | 108 |
| Patiala | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Ropar | 24.0 | -30 | 0.0 | -100 | 10.3 | 35 |
| Sangrur | 0.0 | -100 | 0.5 | -95 | 0.0 | -100 |

| | | | | | | |
|----------------------------|------|------|------|------|-----|------|
| Mohali | 47.0 | 71 | 4.0 | -47 | 0.0 | -100 |
| TarnTaran | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Haryana,Chd,Delhi | | | | | | |
| Haryana | | | | | | |
| Ambala | 21.6 | -45 | 0.0 | -100 | 2.2 | -81 |
| Bhiwani | 0.0 | -100 | 3.6 | -45 | 1.3 | -51 |
| Chandigarh | 27.6 | -33 | 0.1 | -99 | 0.0 | -100 |
| Faridabad | 0.0 | -100 | 20.0 | 113 | 0.0 | -100 |
| Fatehabad | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Gurgaon | 2.0 | -79 | 15.4 | 133 | 0.0 | -100 |
| Hissar | 0.0 | -100 | 3.9 | -42 | 0.0 | -100 |
| Jhajar | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jind | 0.0 | -100 | 0.3 | -96 | 0.0 | -100 |
| Katihah | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Karnal | 0.0 | -100 | 0.3 | -97 | 0.0 | -100 |
| Kurukshetra | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Mahendragarh | 1.5 | -77 | 0.0 | -100 | 0.0 | -100 |
| Mewat | 1.4 | -88 | 3.4 | -75 | 0.0 | -100 |
| Palwal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Panchkkula | 15.4 | -46 | 1.0 | -91 | 1.3 | -70 |
| Panipat | 0.0 | -100 | 1.2 | -87 | 0.0 | -100 |
| Rewari | 2.5 | -74 | 29.3 | 193 | 4.2 | 67 |
| Rohtak | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Sirsa | 0.0 | -100 | 12.3 | 44 | 0.0 | -100 |
| Sonepat | 0.0 | -100 | 0.5 | -94 | 0.0 | -100 |
| Yamunanagar | 15.0 | -43 | 3.6 | -74 | 2.4 | -84 |
| Delhi | | | | | | |
| Central Delhi | 1.0 | -93 | 23.0 | 107 | 0.0 | -100 |
| East Delhi | 0.0 | -100 | 2.0 | -82 | 0.0 | -100 |
| New Delhi | 0.0 | -100 | 1.5 | -86 | 0.0 | -100 |
| North Delhi | 0.8 | -95 | 17.7 | 59 | 0.0 | -100 |
| North East Delhi | 4.0 | -71 | 8.0 | -28 | 0.0 | -100 |
| North West Delhi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| South Delhi | 0.0 | -100 | 4.8 | -57 | 0.0 | -100 |
| South West Delhi | 5.1 | -63 | 7.1 | -36 | 0.0 | -100 |
| West Delhi | ** | ** | 0.0 | -100 | ** | ** |
| Jammu & Kashmir | | | | | | |
| Anantnag | 4.3 | -70 | 1.9 | -75 | 2.9 | -68 |
| Badgam | 0.4 | -96 | 0.0 | -100 | 0.0 | -100 |
| Bandipore | ** | ** | ** | ** | ** | ** |
| Baramula | 4.2 | -66 | 0.0 | -100 | 3.4 | -53 |
| Doda | 2.0 | -95 | 0.0 | -100 | 1.0 | -89 |
| Ganderbal | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Jammu | 20.9 | -34 | 0.0 | -100 | 2.5 | -81 |
| Kargil | ** | ** | ** | ** | ** | ** |
| Kathua | 17.2 | -43 | 44.4 | 107 | 5.2 | -32 |
| Kistwar | ** | ** | ** | ** | ** | ** |
| Kulgam | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Kupwara | 3.0 | -68 | 0.0 | -100 | 0.0 | -100 |

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|----------------------------|-------|------|------|------|------|------|
| Ladakh(Leh) | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Poonch | ** | ** | ** | ** | ** | ** |
| Pulwama | 0.3 | -98 | 0.0 | -100 | 0.0 | -100 |
| Rajouri | 5.8 | -78 | 0.0 | -100 | 8.9 | -30 |
| Ramban | 3.1 | -92 | 0.0 | -100 | 1.5 | -83 |
| Reasi | 24.6 | -50 | 0.8 | -97 | 8.6 | -26 |
| Samba | 13.6 | -57 | 0.0 | -100 | 0.0 | -100 |
| Shopian | ** | ** | ** | ** | ** | ** |
| Srinagar | 0.0 | -100 | 2.9 | -56 | 0.0 | -100 |
| Udhampur | 1.4 | -97 | 0.0 | -100 | 1.2 | -91 |
| East Madhya Pradesh | | | | | | |
| Anuppur | 73.1 | 109 | 12.3 | -28 | 17.3 | 8 |
| Balaghat | 61.9 | 71 | 21.8 | -8 | 12.7 | -27 |
| Chhatarpur | 54.5 | 163 | 1.3 | -91 | 0.8 | -95 |
| Chhindwara | 56.9 | 84 | 19.3 | -9 | 17.1 | 27 |
| Damoh | 22.5 | 15 | 21.0 | 38 | 24.0 | 145 |
| Dindori | 204.9 | 561 | 59.3 | 264 | 2.2 | -79 |
| Jabalpur | 22.4 | -16 | 19.7 | 34 | 10.7 | 3 |
| Katni | 41.4 | 65 | 25.5 | 69 | 10.1 | -4 |
| Mandla | 66.2 | 126 | 37.4 | 130 | 26.8 | 113 |
| Narsingpur | 9.0 | -69 | 31.8 | 73 | 26.5 | 188 |
| Panna | 2.8 | -88 | 7.8 | -48 | 40.3 | 291 |
| Rewa | 33.1 | 43 | 55.0 | 213 | 19.6 | 88 |
| Sagar | 31.8 | 32 | 10.2 | -33 | 26.4 | 124 |
| Satna | 24.2 | -9 | 16.4 | -12 | 8.2 | -28 |
| Seoni | 48.5 | 72 | 26.0 | 42 | 7.7 | -49 |
| Shahdol | 129.6 | 420 | 19.2 | 31 | 4.0 | -67 |
| Sidhi | 134.4 | 304 | 21.4 | 0 | 0.0 | -100 |
| Singrauli | 31.4 | 32 | 90.0 | 809 | 83.0 | 476 |
| Tikamgarh | 3.5 | -79 | 10.0 | -26 | 34.0 | 196 |
| Umaria | 65.5 | 148 | 25.0 | 59 | 1.8 | -89 |
| West Madhya Pradesh | | | | | | |
| Agar | 2.5 | -94 | 5.8 | -79 | 25.2 | 241 |
| Alirajpur | 52.2 | 103 | 73.4 | 303 | 6.5 | -44 |
| Asoknagar | 0.5 | -97 | 3.2 | -70 | 56.0 | 483 |
| Badwani | 12.1 | -61 | 58.1 | 240 | 14.7 | 6 |
| Betul | 38.6 | 43 | 12.7 | -32 | 29.2 | 61 |
| Bhind | 0.0 | -100 | 0.5 | -96 | 9.8 | -43 |
| Bhopal | 32.2 | 1 | 32.9 | 130 | 52.7 | 402 |
| Burhanpur | 46.9 | 115 | 58.8 | 205 | 0.0 | -100 |
| Datia | 0.0 | -100 | 4.4 | -73 | 30.9 | 58 |
| Dewas | 7.7 | -77 | 10.0 | -40 | 15.8 | 31 |
| Dhar | 81.1 | 136 | 80.0 | 238 | 27.8 | 114 |
| Guna | 14.6 | -34 | 17.9 | 60 | 8.5 | -38 |
| Gwalior | 0.0 | -100 | 20.7 | 52 | 6.8 | -67 |
| Harda | 1.7 | -95 | 47.1 | 134 | 0.2 | -99 |
| Hoshangabad | 57.0 | 60 | 32.5 | 89 | 23.7 | 88 |
| Indore | 22.8 | -44 | 15.5 | -33 | 6.2 | -51 |

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|---------------------------|-------|------|-------|------|-------|-----|
| Jhabua | 48.0 | 82 | 81.8 | 290 | 1.7 | -86 |
| Khandwa | 32.8 | -8 | 58.7 | 221 | 4.0 | -64 |
| Khargone | 6.8 | -78 | 55.9 | 205 | 26.7 | 99 |
| Mandsaur | 9.4 | -53 | 7.0 | -51 | 12.4 | -22 |
| Morena | 0.7 | -96 | 0.0 | -100 | 16.5 | 46 |
| Neemuch | 25.0 | 56 | 1.7 | -88 | 34.4 | 125 |
| Raisen | 18.8 | -23 | 29.4 | 85 | 9.1 | -23 |
| Rajgarh | 10.1 | -61 | 13.5 | 48 | 17.7 | 46 |
| Ratlam | 9.1 | -73 | 28.3 | 43 | 4.9 | -68 |
| Sehore | 12.9 | -62 | 10.4 | -27 | 7.2 | -48 |
| Shajapur | 11.5 | -65 | 7.5 | -44 | 4.0 | -71 |
| Sheopur Kalani | 0.0 | -100 | 5.5 | -36 | 10.0 | -34 |
| Shivpuri | 3.6 | -79 | 12.2 | 8 | 13.0 | -14 |
| Ujjain | 21.2 | -33 | 24.2 | 31 | 4.7 | -66 |
| Vidisha | 19.8 | 18 | 25.1 | 95 | 27.0 | 275 |
| Chhattisgarh | | | | | | |
| Balod | 77.1 | 83 | 48.4 | 98 | 148.2 | 792 |
| Baloda Bazar | 93.5 | 166 | 48.6 | 163 | 16.0 | 34 |
| Balrampur | 25.0 | -48 | 20.0 | -21 | 68.0 | 382 |
| Bastar | 1.8 | -96 | 23.8 | -33 | 124.2 | 317 |
| Bemetara | 105.9 | 189 | 69.2 | 259 | 155.9 | 926 |
| Bijapur | 167.9 | 368 | 36.0 | -3 | 67.3 | 129 |
| Bilaspur | 95.2 | 192 | 31.9 | 69 | 58.4 | 284 |
| Dantewara | 51.4 | 45 | 11.5 | -72 | 26.0 | -14 |
| Dhamtari | 72.2 | 95 | 44.8 | 84 | 43.2 | 211 |
| Durg | 115.6 | 174 | 25.2 | 3 | 29.0 | 75 |
| Gariaband | 105.0 | 246 | 32.2 | 13 | 31.8 | 67 |
| Janjgir | 127.3 | 193 | 19.4 | -1 | 31.9 | 180 |
| Jashpurnagar | 48.4 | 6 | 3.5 | -90 | 28.6 | 66 |
| Kabirdham | 132.6 | 257 | 45.1 | 96 | 25.8 | 31 |
| Kanker | 104.9 | 162 | 62.1 | 157 | 82.1 | 277 |
| Kondagaon | 37.4 | -10 | 72.2 | 138 | 159.6 | 514 |
| Korba | 165.2 | 369 | 23.5 | -3 | 26.7 | 83 |
| Koriya | 97.2 | 277 | 51.3 | 186 | 31.6 | 300 |
| Mahasumund | 59.9 | 80 | 78.6 | 344 | 58.7 | 274 |
| Mungeli | 77.4 | 137 | 17.6 | -7 | 26.4 | 74 |
| Narayanpur | 47.1 | 33 | 77.7 | 177 | 100.3 | 231 |
| Raigarh | 43.9 | 15 | 23.3 | 3 | 41.8 | 185 |
| Raipur | 107.2 | 183 | 116.7 | 570 | 42.4 | 247 |
| Rajnandgaon | 66.9 | 70 | 65.7 | 240 | 71.2 | 224 |
| Sukma | 102.2 | 172 | 51.7 | 73 | 69.9 | 130 |
| Surajpur | 66.8 | 132 | 7.5 | -67 | 41.7 | 286 |
| Surguja | 69.5 | 79 | 99.8 | 237 | 37.4 | 127 |
| East Uttar Pradesh | | | | | | |
| Allahabad | 51.7 | 107 | 43.5 | 177 | 26.9 | 98 |
| Ambedkar Nagar | 142.0 | 363 | 8.0 | -61 | 5.0 | -69 |
| Azamgarh | 187.4 | 477 | 24.1 | -8 | 8.3 | -42 |
| Bahraich | 33.3 | 15 | 7.3 | -76 | 81.7 | 278 |
| Ballia | 87.1 | 222 | 48.7 | 110 | 29.0 | 282 |

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|---------------------------|-------|------|------|------|------|------|
| Balrampur | 0.0 | -100 | 7.7 | -80 | 35.3 | 15 |
| Banda | 5.8 | -71 | 3.4 | -78 | 11.0 | -33 |
| Barabanki | 9.1 | -63 | 5.7 | -78 | 22.4 | 14 |
| Basti | 179.8 | 529 | 4.1 | -86 | 35.0 | 123 |
| Chandauli | 48.0 | 67 | 9.0 | -57 | 1.5 | -85 |
| Deoria | 67.5 | 110 | 29.5 | -23 | 7.5 | -16 |
| Faizabad | 51.5 | 102 | 0.0 | -100 | 33.4 | 96 |
| Farrukhabad | 18.9 | 12 | 0.0 | -100 | 10.3 | -41 |
| Fatehpur | 5.9 | -73 | 0.7 | -96 | 24.2 | 60 |
| Gazipur | 96.4 | 171 | 40.1 | 30 | 20.3 | 82 |
| Gonda | 10.7 | -71 | 4.7 | -86 | 25.6 | 7 |
| Gorakhpur | 86.9 | 167 | 16.2 | -57 | 35.2 | 39 |
| Hardoi | 11.1 | -48 | 0.0 | -100 | 8.3 | -62 |
| Jaunpur | 59.0 | 86 | 15.8 | -13 | 7.7 | -30 |
| Kannauj | 1.8 | -91 | 0.0 | -100 | 17.5 | -28 |
| Kanpur City | 1.5 | -93 | 0.0 | -100 | 31.5 | 56 |
| Kanpur Dehat | 12.9 | -51 | 0.0 | -100 | 24.5 | 30 |
| Kaushambi | 18.4 | -38 | 18.7 | 21 | 0.0 | -100 |
| Kheri | 32.0 | 7 | 0.0 | -100 | 39.6 | 42 |
| Kushi nagar | 52.5 | 27 | 13.5 | -75 | 2.0 | -88 |
| Lucknow | 5.9 | -75 | 0.2 | -99 | 28.0 | 61 |
| Maharajganj | 63.8 | 87 | 19.3 | -50 | 41.5 | 81 |
| Mau | 51.5 | 56 | 25.0 | -20 | 0.0 | -100 |
| Mirzapur | 91.1 | 219 | 30.5 | 62 | 8.3 | -33 |
| Pratapgarh | 35.0 | 34 | 10.3 | -37 | 30.3 | 114 |
| RaiBareilly | 11.2 | -52 | 0.2 | -99 | 18.7 | -20 |
| Sahuji Maharajnagar | 77.5 | 191 | 29.0 | 50 | 3.5 | -77 |
| Sant Kabirnnagar | 134.0 | 394 | 12.0 | -62 | 83.0 | 461 |
| Sant Ravidas Nagar | 45.0 | 57 | 28.0 | 33 | 6.0 | -38 |
| Shrawasti | 53.6 | 85 | 31.0 | 2 | 17.8 | -18 |
| Sidharthnagar | 8.5 | -68 | 17.1 | -50 | 22.7 | -12 |
| Sitapur | 0.9 | -97 | 0.0 | -100 | 2.5 | -91 |
| Sonbhadra | 103.2 | 212 | 24.0 | 48 | 26.6 | 74 |
| Sultanpur | 40.2 | 62 | 0.0 | -100 | 30.2 | 59 |
| Unnao | 5.0 | -81 | 0.0 | -100 | 23.8 | 11 |
| Varanasi | 148.9 | 307 | 15.6 | -31 | 8.9 | -6 |
| West Uttar Pradesh | | | | | | |
| Agra | 0.9 | -95 | 0.0 | -100 | 6.8 | -34 |
| Aligarh | 15.2 | -26 | 4.3 | -80 | 0.0 | -100 |
| Auraiya | 0.0 | -100 | 0.0 | -100 | 27.2 | 43 |
| Badaun | 3.2 | -86 | 4.0 | -82 | 16.0 | -34 |
| Baghpat | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Bareilly | 33.3 | 17 | 5.9 | -75 | 6.2 | -73 |
| Bijnor | 31.8 | 31 | 8.5 | -61 | 0.0 | -100 |
| Bulandsahar | 6.1 | -74 | 4.7 | -79 | 3.2 | -75 |
| Etah | 0.0 | -100 | 0.0 | -100 | 4.4 | -69 |
| Etawah | 0.0 | -100 | 0.0 | -100 | 7.5 | -67 |
| Firozabad | 0.0 | -100 | 2.7 | -80 | 13.2 | -33 |

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|--------------------|-------|------|------|------|-------|------|
| GBNagar | 0.0 | -100 | 13.0 | -41 | 0.0 | -100 |
| Ghaziabad | 0.0 | -100 | 3.2 | -85 | 0.0 | -100 |
| Hamirpur | 6.0 | -64 | 0.0 | -100 | 20.8 | 60 |
| Jalaun | 16.0 | -26 | 1.3 | -93 | 31.8 | 60 |
| Jhansi | 1.4 | -94 | 1.7 | -89 | 20.6 | 20 |
| Jotiba Phule Nagar | 15.0 | -40 | 0.0 | -100 | 0.0 | -100 |
| Kanshiramnagar | 0.0 | -100 | 2.0 | -91 | 0.0 | -100 |
| Lalitpur | 8.0 | -57 | 0.0 | -100 | 13.0 | -14 |
| Mahamaya Nagar | 0.5 | -98 | 24.5 | 38 | 0.0 | -100 |
| Mahoba | 0.0 | -100 | 5.8 | -56 | 0.0 | -100 |
| Mainpuri | 0.0 | -100 | 0.0 | -100 | 7.1 | -61 |
| Mathura | 1.0 | -93 | 0.0 | -100 | 0.0 | -100 |
| Meerut | 9.3 | -57 | 0.0 | -100 | 0.0 | -100 |
| Moradabad | 31.5 | 20 | 0.5 | -98 | 0.2 | -98 |
| Muzzaffarnagar | 30.9 | 27 | 0.0 | -100 | 0.0 | -100 |
| Pilibhit | 25.9 | -38 | 1.4 | -96 | 1.6 | -95 |
| Rampur | 29.3 | -3 | 0.0 | -100 | 0.0 | -100 |
| Saharanpur | 8.3 | -54 | 0.0 | -100 | 4.0 | -74 |
| Shahjahanpur | 1.5 | -94 | 0.0 | -100 | 7.6 | -71 |
| Uttarakhand | | | | | | |
| Almora | 47.3 | 53 | 0.5 | -98 | 0.0 | -100 |
| Bageshwar | 31.5 | 2 | 0.8 | -97 | 2.5 | -87 |
| Chamoli | 34.7 | 72 | 6.6 | -57 | 3.4 | -78 |
| Champawat | 89.0 | 122 | 11.5 | -64 | 7.6 | -68 |
| Dehradun | 30.3 | -12 | 3.2 | -88 | 12.7 | -52 |
| Garhwal Pauri | 16.6 | -35 | 0.0 | -100 | 0.0 | -100 |
| Garhwal Tehri | 1.1 | -95 | 0.0 | -99 | 0.1 | -99 |
| Haridwar | 37.9 | 66 | 5.7 | -60 | 2.5 | -82 |
| Nainital | 36.7 | -13 | 1.1 | -97 | 13.0 | -55 |
| Pithorgarh | 39.7 | -21 | 26.3 | 6 | 12.6 | -38 |
| Rudraprayag | 36.4 | 35 | 13.0 | -44 | 0.8 | -97 |
| Udham Sing Nagar | 33.1 | -7 | 0.7 | -98 | 0.0 | -100 |
| Uttarkashi | 24.2 | -29 | 19.0 | -14 | 0.5 | -98 |
| Bihar | | | | | | |
| Araria | 204.7 | 255 | 5.4 | -86 | 116.8 | 556 |
| Arwal | 68.1 | 129 | 0.0 | -100 | 96.5 | 885 |
| Aurangabad | 130.4 | 378 | 0.0 | -100 | 152.6 | 1120 |
| Banka | 148.1 | 162 | 11.1 | -70 | 66.2 | 185 |
| Begusarai | 98.5 | 114 | 7.3 | -74 | 23.3 | 117 |
| Bhabua | 79.7 | 92 | 0.0 | -100 | 29.9 | 177 |
| Bhagalpur | 76.4 | 32 | 4.7 | -86 | 21.3 | -2 |
| Bhojpur | 22.5 | -23 | 0.0 | -100 | 7.0 | -42 |
| Buxar | 49.6 | 147 | 0.0 | -100 | 132.0 | 495 |
| Darbhanga | 116.4 | 168 | 5.5 | -86 | 38.6 | 219 |
| East Champaran | 49.9 | 31 | 0.9 | -97 | 20.9 | 15 |
| Gaya | 101.4 | 205 | 2.2 | -89 | 113.1 | 719 |
| Gopalganj | 88.5 | 204 | 0.0 | -100 | 19.0 | 47 |
| Jahanabad | 51.9 | 57 | 0.0 | -100 | 38.5 | 274 |
| Jamui | 86.9 | 39 | 0.0 | -100 | 28.2 | 21 |

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|-----------------------|-------|-----|------|------|-------|------|
| Kathihar | 60.3 | -11 | 0.0 | -100 | 62.7 | 160 |
| Khagadia | 77.5 | 6 | 0.0 | -100 | 26.1 | 47 |
| Kishanganj | 200.8 | 174 | 13.0 | -60 | 110.1 | 405 |
| Lakhisarai | 85.8 | 48 | 0.0 | -100 | 29.9 | 72 |
| Madhepura | 116.7 | 104 | 0.0 | -100 | 72.9 | 303 |
| Madhubani | 97.4 | 156 | 0.0 | -100 | 18.4 | -20 |
| Monghyar | 130.8 | 126 | 0.0 | -100 | 31.0 | 78 |
| Muzaffarpur | 87.8 | 125 | 1.1 | -97 | 28.1 | 71 |
| Nalanda | 43.9 | 12 | 0.0 | -100 | 50.3 | 216 |
| Nawada | 88.0 | 123 | 0.0 | -100 | 48.8 | 226 |
| Patna | 77.9 | 91 | 0.0 | -100 | 52.3 | 206 |
| Purnea | 86.6 | 36 | 0.0 | -100 | 71.5 | 254 |
| Rohtas | 81.4 | 184 | 0.0 | -100 | 57.2 | 297 |
| Saharsha | 94.4 | 83 | 0.0 | -100 | 40.6 | 49 |
| Samstipur | 80.7 | 48 | 6.9 | -82 | 87.9 | 685 |
| Saran | 82.0 | 102 | 0.0 | -100 | 47.7 | 326 |
| Sheikpura | 55.3 | 39 | 0.0 | -100 | 105.8 | 570 |
| Sheohar | 58.4 | 85 | 0.0 | -100 | 0.0 | -100 |
| Sitamarhi | 39.8 | 26 | 1.9 | -93 | 0.0 | -100 |
| Siwan | 52.1 | 60 | 4.6 | -76 | 41.6 | 255 |
| Supaul | 139.1 | 178 | 3.4 | -90 | 117.5 | 535 |
| Vaishali | 59.8 | 41 | 4.6 | -88 | 53.6 | 182 |
| West Champaran | 45.1 | 10 | 10.5 | -65 | 30.8 | 65 |
| Jharkhand | | | | | | |
| Bokaro | 46.8 | 2 | 0.0 | -100 | 47.1 | 100 |
| Chatra | 77.0 | 66 | 30.2 | 22 | 11.6 | -43 |
| Deoghar | 20.4 | -71 | 5.1 | -87 | 1.1 | -94 |
| Dhanbad | 98.9 | 43 | 0.9 | -98 | 29.1 | 29 |
| Dumka | 125.1 | 66 | 43.3 | -37 | 59.6 | 79 |
| East Singbhum | 44.9 | -12 | 13.6 | -58 | 25.4 | 62 |
| Garhwa | 66.4 | 93 | 27.5 | 42 | 48.1 | 97 |
| Giridih | 83.0 | 34 | 6.4 | -85 | 43.9 | 112 |
| Godda | 52.4 | -17 | 11.4 | -70 | 25.6 | 16 |
| Gumla | 31.9 | -33 | 13.8 | -54 | 47.8 | 140 |
| Hazaribagh | 85.9 | 124 | 21.7 | -42 | 86.5 | 363 |
| Jamtara | 85.7 | 11 | 9.7 | -86 | 29.2 | 7 |
| Khunti | 27.0 | -40 | 3.0 | -90 | 25.0 | -1 |
| Koderrna | 19.7 | -64 | 0.7 | -98 | 18.3 | -16 |
| Latehar | 184.8 | 331 | 2.6 | -91 | 80.9 | 328 |
| Lohardagga | 109.5 | 154 | 5.1 | -84 | 52.7 | 249 |
| Pakur | 87.9 | -1 | 21.3 | -67 | 18.0 | -60 |
| Palamau | 168.4 | 317 | 16.4 | -11 | 93.7 | 404 |
| Ramgarh | 30.0 | -32 | 9.0 | -75 | 94.0 | 359 |
| Ranchi | 28.0 | -44 | 0.2 | -99 | 29.6 | 55 |
| Sahebganj | 131.2 | 36 | 21.0 | -68 | 8.6 | -64 |
| Saraikela | 45.4 | -10 | 7.4 | -76 | 8.1 | -57 |
| Simdega | 30.0 | -38 | 7.5 | -74 | 28.6 | 60 |
| West Singbhum | 74.0 | 68 | 0.0 | -100 | 5.9 | -70 |
| East Rajasthan | | | | | | |

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|-----------------------|-------|------|------|------|------|------|
| Ajmer | 1.5 | -80 | 18.1 | 255 | 44.7 | 1108 |
| Alwar | 5.5 | -56 | 10.3 | 4 | 1.4 | -84 |
| Banswara | 33.8 | 58 | 54.0 | 507 | 21.4 | 42 |
| Baran | 0.1 | -99 | 12.5 | 95 | 21.1 | 64 |
| Bharatpur | 8.0 | -21 | 9.7 | 9 | 17.3 | 88 |
| Bhilwara | 0.3 | -98 | 6.9 | 28 | 7.7 | 53 |
| Bundi | 4.2 | -68 | 1.5 | -80 | 16.5 | 81 |
| Chittorgarh | 8.0 | -48 | 9.9 | 44 | 29.1 | 227 |
| Dausa | 11.4 | -3 | 4.6 | -53 | 12.4 | 85 |
| Dholpur | 1.2 | -91 | 0.5 | -95 | 14.2 | 29 |
| Dungarpur | 17.7 | 27 | 26.3 | 318 | 11.5 | 28 |
| Jaipur | 10.7 | 19 | 5.5 | -6 | 14.7 | 199 |
| Jhalawar | 3.7 | -84 | 4.7 | -41 | 13.3 | -10 |
| Jhunjhunu | 7.1 | -29 | 12.3 | 86 | 0.1 | -96 |
| Karauli | 17.7 | 62 | 0.0 | -100 | 31.8 | 232 |
| Kota | 0.4 | -98 | 11.0 | 124 | 13.1 | -10 |
| Pratapgarh | 63.8 | 141 | 35.8 | 182 | 18.0 | -1 |
| Rajsamand | 0.1 | -99 | 22.9 | 269 | 32.7 | 922 |
| Sawai Madhopur | 3.6 | -70 | 1.0 | -89 | 21.3 | 93 |
| Sikar | 2.3 | -74 | 18.8 | 248 | 1.4 | -49 |
| Sirohi | 0.0 | -100 | 47.7 | 784 | 17.3 | 380 |
| Tonk | 5.5 | -44 | 8.9 | 58 | 10.5 | 55 |
| Udaipur | 4.8 | -70 | 25.8 | 285 | 34.2 | 427 |
| West Rajasthan | | | | | | |
| Barmer | 0.0 | -100 | 22.9 | 782 | 0.0 | -100 |
| Bikaner | 0.2 | -97 | 6.5 | 140 | 2.3 | 287 |
| Churu | 22.4 | 136 | 28.8 | 372 | 0.6 | -56 |
| Hanumangarh | 6.7 | 10 | 1.9 | -29 | 0.6 | 14 |
| Jaisalmer | 0.0 | -100 | 6.2 | 520 | 0.0 | -100 |
| Jalore | 0.0 | -100 | 47.4 | 1380 | 0.0 | -100 |
| Jodhpur | 0.2 | -96 | 19.0 | 805 | 3.6 | 408 |
| Nagaur | 1.8 | -77 | 18.2 | 469 | 9.4 | 453 |
| Pali | 0.0 | -100 | 30.9 | 531 | 0.0 | -100 |
| Sri Ganganagar | 6.0 | 70 | 0.0 | -100 | 0.1 | -92 |
| Gujarat Region | | | | | | |
| Ahmedabad | 1.9 | -87 | 27.1 | 331 | 25.3 | 164 |
| Anand | 26.5 | 71 | 48.7 | 524 | 6.0 | -36 |
| Aravalli | 16.2 | -8 | 39.8 | 477 | 33.0 | 240 |
| Banaskantha | 0.0 | -100 | 59.3 | 905 | 19.0 | 458 |
| Broach | 24.6 | -24 | 47.7 | 227 | 18.7 | 87 |
| Chhota Udepur | 53.1 | 112 | 30.0 | 75 | 5.0 | -60 |
| DNH | 109.4 | 3 | 78.1 | 176 | 7.6 | -54 |
| Dahod | 35.0 | 60 | 36.4 | 209 | 12.5 | -7 |
| Daman | 137.3 | 30 | 43.6 | 54 | 29.8 | 82 |
| Dangs | 32.5 | -53 | 61.0 | 31 | 13.8 | -6 |
| Gandhinagar | 8.3 | -56 | 22.2 | 319 | 41.4 | 365 |
| Kheda | 3.1 | -82 | 41.6 | 571 | 36.2 | 269 |
| Mahisagar | 14.9 | 5 | 33.9 | 298 | 20.7 | 80 |
| Mehsana | 0.2 | -99 | 36.1 | 423 | 30.4 | 348 |

| | | | | | | |
|-----------------------------|-------|------|-------|------|------|------|
| Narmada | 46.1 | 47 | 61.8 | 186 | 23.7 | 116 |
| Navsari | 88.6 | 64 | 23.8 | -26 | 26.1 | 78 |
| Panchmahal | 22.9 | 7 | 61.4 | 463 | 18.7 | 85 |
| Patan | 0.0 | -100 | 47.4 | 1149 | 15.9 | 270 |
| Sabarkantha | 3.9 | -77 | 23.6 | 214 | 16.8 | 36 |
| Surat | 38.9 | -11 | 89.1 | 245 | 25.2 | 142 |
| Tapi | 37.6 | -17 | 87.0 | 213 | 10.6 | 43 |
| Vadodara | 23.7 | -1 | 32.9 | 208 | 17.3 | 27 |
| Valsad | 108.6 | 35 | 44.5 | 11 | 22.0 | 45 |
| S K & Diu region | | | | | | |
| Amreli | 1.3 | -96 | 51.5 | 400 | 52.4 | 789 |
| Bhavnagar | 0.8 | -97 | 48.9 | 456 | 17.4 | 126 |
| Botad | 0.0 | -100 | 73.5 | 600 | 51.3 | 541 |
| Devbhoomi Dwarka | 0.0 | -100 | 33.3 | 494 | 16.4 | 682 |
| Diu | 22.4 | 45 | 6.0 | 22 | 13.7 | 59 |
| Gir Somnath | 14.4 | -12 | 23.3 | 133 | 44.3 | 560 |
| Jamnagar | 0.0 | -100 | 85.3 | 848 | 14.3 | 250 |
| Junagarh | 26.0 | 52 | 67.8 | 377 | 74.9 | 1108 |
| Kutch | 0.0 | -100 | 32.5 | 655 | 5.4 | 238 |
| Morbi | 0.0 | -100 | 56.8 | 802 | 18.6 | 481 |
| Porbandar | 0.0 | -100 | 62.9 | 511 | 29.7 | 560 |
| Rajkot | 1.9 | -91 | 66.3 | 471 | 14.8 | 72 |
| Surendranagar | 0.0 | -100 | 27.4 | 215 | 15.8 | 105 |
| Maharashtra | | | | | | |
| Konkan & Goa | | | | | | |
| Mumbai City | 374.0 | 359 | 59.8 | 27 | 7.6 | -69 |
| Mumbai Suburban | 244.9 | 203 | 58.1 | 26 | 20.4 | -34 |
| North Goa | 135.7 | 110 | 25.6 | -66 | 96.3 | 124 |
| Raigad | 351.8 | 280 | 101.7 | 64 | 15.5 | -63 |
| Ratnagiri | 385.5 | 382 | 109.8 | 50 | 34.7 | -23 |
| Sindhudurg | 195.7 | 193 | 27.7 | -59 | 88.6 | 116 |
| South Goa | 114.8 | 112 | 10.5 | -83 | 48.7 | 38 |
| Thane | 124.6 | 70 | 46.5 | 1 | 12.6 | -63 |
| Madhya Maharashtra | | | | | | |
| Ahmednagar | 78.9 | 76 | 105.0 | 251 | 4.5 | -79 |
| Dhule | 32.0 | -4 | 68.7 | 214 | 4.4 | -73 |
| Jalgaon | 38.0 | 31 | 51.8 | 136 | 19.0 | 23 |
| Kolhapur | 49.2 | 7 | 7.4 | -86 | 31.7 | -10 |
| Nandurbar | 33.1 | -3 | 42.0 | 103 | 18.5 | 25 |
| Nasik | 51.4 | 11 | 56.9 | 71 | 8.8 | -57 |
| Pune | 58.9 | 23 | 49.9 | 23 | 7.8 | -69 |
| Sangli | 64.0 | 52 | 12.6 | -72 | 5.3 | -83 |
| Satara | 44.1 | -8 | 48.2 | 17 | 9.0 | -66 |
| Solapur | 110.1 | 106 | 65.9 | 74 | 2.5 | -90 |
| Marathwada | | | | | | |
| Aurangabad | 41.9 | -2 | 56.8 | 120 | 7.6 | -60 |
| Beed | 220.9 | 380 | 98.8 | 292 | 5.6 | -74 |
| Hingoli | 85.5 | 139 | 68.5 | 176 | 46.8 | 134 |

| | | | | | | |
|-----------------|-------|-----|-------|-----|-------|-----|
| Jalna | 96.5 | 159 | 77.3 | 267 | 7.8 | -68 |
| Latur | 157.5 | 363 | 126.8 | 301 | 19.8 | -23 |
| Nanded | 109.5 | 188 | 79.5 | 188 | 37.5 | 50 |
| Osmanabad | 173.1 | 239 | 109.7 | 245 | 8.0 | -63 |
| Parbhani | 170.7 | 356 | 75.9 | 172 | 24.0 | 13 |
| Vidarbha | | | | | | |
| Akola | 35.6 | 20 | 58.3 | 175 | 15.7 | 0 |
| Amraoti | 59.3 | 88 | 53.4 | 142 | 32.0 | 82 |
| Bhandara | 73.3 | 129 | 43.2 | 82 | 55.7 | 201 |
| Buldhana | 56.2 | 115 | 56.5 | 177 | 4.9 | -75 |
| Chandrapur | 128.2 | 240 | 61.2 | 165 | 62.7 | 241 |
| Gadchiroli | 98.9 | 217 | 75.8 | 161 | 65.6 | 230 |
| Gondia | 72.9 | 115 | 31.3 | 32 | 53.8 | 199 |
| Nagpur | 44.3 | 58 | 29.7 | 48 | 50.6 | 166 |
| Wardha | 28.5 | -10 | 42.3 | 117 | 37.0 | 108 |
| Washim | 70.2 | 168 | 49.3 | 132 | 20.7 | -16 |
| Yeotmal | 51.4 | 68 | 46.9 | 96 | 33.3 | 86 |
| Odisha | | | | | | |
| Angul | 32.9 | -23 | 30.8 | 7 | 65.9 | 171 |
| Balasore | 97.7 | 30 | 39.3 | -43 | 89.2 | 69 |
| Bargarh | 34.3 | 5 | 17.5 | -8 | 41.0 | 171 |
| Bhadrak | 107.7 | 128 | 34.5 | -15 | 44.0 | -2 |
| Bolangir | 59.0 | 86 | 27.9 | 2 | 108.2 | 488 |
| Boudh | 46.5 | 12 | 19.2 | -54 | 52.1 | 40 |
| Cuttack | 91.8 | 98 | 49.4 | 20 | 60.5 | 64 |
| Deogarh | 19.6 | -52 | 20.6 | -9 | 29.4 | 92 |
| Dhenkanal | 36.6 | -19 | 23.7 | -42 | 37.7 | 23 |
| Gajapati | 91.2 | 98 | 84.8 | 99 | 83.0 | 97 |
| Ganjam | 103.5 | 135 | 58.4 | 11 | 96.2 | 89 |
| Jagatsingpur | 118.6 | 134 | 94.6 | 161 | 77.7 | 101 |
| Jajpur | 109.8 | 99 | 41.9 | -8 | 30.3 | -25 |
| Jharsuguda | 53.7 | 42 | 10.7 | -53 | 29.0 | 31 |
| Kalahandi | 37.1 | 18 | 80.7 | 112 | 105.6 | 548 |
| Kandhamal | 34.7 | -17 | 38.1 | -8 | 49.3 | 32 |
| Kendrapara | 130.0 | 127 | 48.6 | -11 | 103.2 | 79 |
| Keonjhar | 43.5 | -8 | 19.4 | -41 | 30.2 | -7 |
| Khurda | 78.2 | 55 | 56.1 | 25 | 55.2 | 2 |
| Koraput | 48.2 | 9 | 47.7 | -6 | 52.5 | 33 |
| Malkangiri | 8.0 | -77 | 14.1 | -63 | 73.4 | 105 |
| Mayurbhanj | 65.0 | 4 | 50.8 | 4 | 28.7 | 5 |
| Nawapara | 93.0 | 169 | 28.5 | 7 | 29.3 | 73 |
| Nawarangpur | 41.0 | 23 | 79.2 | 68 | 68.6 | 241 |
| Nayagarh | 80.5 | 43 | 60.7 | 40 | 57.4 | 11 |
| Puri | 98.3 | 75 | 50.8 | 6 | 56.3 | 5 |
| Rayagada | 29.5 | -21 | 53.9 | 63 | 52.5 | 33 |
| Sambalpur | 14.6 | -64 | 7.2 | -68 | 49.7 | 225 |
| Sonepur | 33.3 | -23 | 8.2 | -70 | 46.1 | 241 |
| Sundargarh | 52.2 | 53 | 19.1 | 4 | 37.7 | 143 |

| | | | | | | |
|--|-------|-----|-------|-----|-------|------|
| West Bengal & Andaman Nicobar Islands | | | | | | |
| A & N ISLAND | | | | | | |
| Nicobar | 104.8 | 11 | 83.4 | -10 | 7.3 | -91 |
| North & Middle Andaman | 66.6 | -32 | 113.0 | 13 | 49.0 | -32 |
| South Andaman | 87.0 | -24 | 231.6 | 122 | 6.9 | -90 |
| GWB | | | | | | |
| Bankura | 51.1 | -15 | 4.1 | -93 | 32.3 | 57 |
| Birbhum | 52.9 | -34 | 16.8 | -65 | 29.9 | 32 |
| Burdwan | 52.3 | -18 | 1.6 | -96 | 36.8 | 66 |
| East Midnapore | 70.4 | -23 | 58.0 | -33 | 90.7 | 116 |
| Hooghly | 54.9 | -1 | 0.2 | -99 | 64.0 | 134 |
| Howrah | 29.3 | -65 | 8.1 | -85 | 12.8 | -66 |
| Kolkata | 6.5 | -92 | 6.9 | -90 | 82.9 | 109 |
| Murshidabad | 63.1 | -15 | 12.4 | -79 | 84.2 | 184 |
| Nadia | 59.0 | -1 | 7.1 | -81 | 44.0 | 89 |
| 24 Pargana (N) | 29.4 | -57 | 6.4 | -89 | 34.6 | 18 |
| Purulia | 73.5 | 24 | 1.6 | -97 | 20.8 | -4 |
| 24 Pargana (S) | 44.4 | -55 | 25.4 | -63 | 24.3 | -60 |
| West Midnapore | 22.5 | -64 | 18.9 | -68 | 33.6 | 57 |
| SHWB & Sikkim | | | | | | |
| Cooch Behar | 216.7 | 114 | 41.6 | -39 | 68.6 | 75 |
| Darjeeling | 96.2 | -8 | 15.1 | -80 | 160.6 | 504 |
| East Sikkim | 66.1 | -6 | 16.1 | -70 | 42.4 | -31 |
| Jalpaiguri | 181.0 | 80 | 36.3 | -50 | 165.0 | 231 |
| Malda | 119.7 | 42 | 11.5 | -81 | 71.0 | 154 |
| North Dinajpur | 125.2 | -5 | 10.8 | -68 | ** | ** |
| North Sikkim | 226.6 | 225 | 41.1 | -61 | 84.4 | 14 |
| South Dinajpur | 63.2 | -3 | 6.4 | -90 | 0.0 | -100 |
| South Sikkim | 55.6 | -21 | 31.0 | -42 | 71.8 | 18 |
| West Sikkim | ** | ** | ** | ** | ** | ** |
| Karnataka | | | | | | |
| Coastal Karnataka | | | | | | |
| Dakshina Kannada | 84.0 | 22 | 5.5 | -93 | 36.1 | -43 |
| Udupi | 105.1 | 12 | 10.1 | -88 | 51.9 | -13 |
| Uttara Kannada | 86.4 | 56 | 5.2 | -92 | 105.0 | 155 |
| N I Karnataka | | | | | | |
| Bagalkote | 42.5 | -2 | 2.8 | -94 | 14.3 | -55 |
| Belagavi | 28.9 | -23 | 13.8 | -68 | 11.1 | -65 |
| Bidar | 235.9 | 415 | 91.9 | 184 | 40.6 | 50 |
| Dharwad | 8.3 | -76 | 18.8 | -56 | 39.1 | 27 |
| Gadag | 24.1 | -43 | 9.9 | -78 | 0.3 | -99 |
| Haveri | 15.7 | -52 | 8.9 | -76 | 7.4 | -77 |
| Kalaburgi | 112.5 | 131 | 28.8 | -31 | 14.8 | -48 |
| Koppal | 32.2 | -18 | 29.2 | -29 | 9.7 | -67 |
| Raichur | 59.6 | 54 | 5.0 | -89 | 11.4 | -66 |
| Vijayapura | 25.6 | -48 | 11.8 | -75 | 7.4 | -71 |
| Yadgir | 68.0 | 39 | 9.1 | -81 | 8.4 | -75 |
| S I Karnataka | | | | | | |

| | | | | | | |
|--------------------|-------|------|------|------|------|------|
| Ballari | 19.5 | -45 | 1.3 | -97 | 3.6 | -88 |
| Bangalore Rural | 12.7 | -69 | 9.8 | -83 | 13.3 | -72 |
| Bangalore Urban | 6.2 | -87 | 5.4 | -90 | 12.1 | -72 |
| Chamarajanagar | 9.5 | -75 | 1.6 | -96 | 0.0 | -100 |
| Chikaballapur | 6.8 | -82 | 5.2 | -90 | 3.0 | -93 |
| Chikkamagaluru | 40.9 | -17 | 2.1 | -96 | 18.3 | -56 |
| Chitradurga | 29.0 | -16 | 0.0 | -100 | 31.7 | -3 |
| Davangere | 43.4 | 31 | 20.8 | -51 | 3.3 | -90 |
| Hassan | 4.6 | -88 | 16.4 | -60 | 1.1 | -97 |
| Kodagu | 69.9 | 46 | 4.9 | -92 | 5.6 | -88 |
| Kolar | 3.5 | -90 | 9.5 | -79 | 5.0 | -89 |
| Mandya | 20.6 | -50 | 19.1 | -54 | 6.8 | -82 |
| Mysuru | 7.7 | -77 | 2.6 | -93 | 0.0 | -100 |
| Ramanagara | 9.4 | -82 | 6.1 | -89 | 28.1 | -38 |
| Shivamogga | 101.9 | 189 | 11.9 | -75 | 27.9 | -20 |
| Tumakuru | 6.8 | -85 | 3.6 | -93 | 11.6 | -69 |
| Kerala | | | | | | |
| Alappuzha | 12.1 | -85 | 42.1 | -40 | 0.3 | -99 |
| Kannur | 39.2 | -25 | 0.9 | -99 | 10.5 | -82 |
| Ernakulam | 13.4 | -84 | 4.6 | -94 | 0.6 | -99 |
| Idukki | 36.0 | -60 | 29.5 | -66 | 4.4 | -95 |
| Kasaragod | 47.2 | -24 | 1.0 | -98 | 18.6 | -75 |
| Kollam | 4.3 | -94 | 5.3 | -92 | 4.0 | -95 |
| Kottayam | 5.7 | -93 | 19.3 | -74 | 0.5 | -99 |
| Kozhikode | 30.3 | -57 | 2.3 | -97 | 21.3 | -68 |
| Malappuram | 22.6 | -62 | 2.3 | -96 | 1.8 | -98 |
| Palakkad | 24.5 | -55 | 1.9 | -97 | 0.2 | -99 |
| Pathanamthitta | 5.3 | -94 | 24.5 | -67 | 0.0 | -100 |
| Thiruvananthapuram | 5.4 | -90 | 1.2 | -97 | 0.6 | -99 |
| Thrissur | 21.5 | -74 | 1.2 | -99 | 0.1 | -99 |
| Wyand | 33.2 | -30 | 3.0 | -95 | 2.8 | -94 |
| Tamil Nadu | | | | | | |
| Ariyalur | 0.0 | -100 | 37.5 | 7 | 0.3 | -99 |
| Chennai | 0.1 | -99 | 96.7 | 149 | 5.0 | -88 |
| Coimbatore | 3.8 | -83 | 2.7 | -88 | 0.6 | -98 |
| Cuddalore | 3.0 | -91 | 25.2 | -24 | 22.9 | -45 |
| Dharmapuri | 0.5 | -99 | 8.0 | -82 | 28.8 | -39 |
| Dindigul | 0.4 | -99 | 8.1 | -78 | 0.0 | -99 |
| Erode | 1.2 | -96 | 5.3 | -84 | 1.6 | -95 |
| Kanchipuram | 19.7 | -46 | 87.0 | 124 | 21.4 | -45 |
| Kanyakumari | 2.3 | -93 | 0.3 | -99 | 0.3 | -99 |
| Karikal | 0.0 | -100 | 22.7 | -24 | 16.1 | -52 |
| Karur | 0.0 | -100 | 6.6 | -77 | 0.1 | -99 |
| Krishnagiri | 0.3 | -99 | 3.0 | -94 | 16.3 | -62 |
| Madurai | 1.6 | -95 | 15.6 | -59 | 18.3 | -55 |
| Nagapattinam | 0.2 | -99 | 9.4 | -69 | 37.2 | 13 |
| Namakkal | 1.9 | -94 | 12.3 | -62 | 2.2 | -95 |
| Nilgiris | 9.4 | -77 | 7.6 | -81 | 0.8 | -98 |
| Perambalur | 0.5 | -98 | 34.0 | 13 | 0.0 | -100 |

| | | | | | | |
|-------------------------------|-------|------|------|------|------|------|
| Puducherry | 53.8 | 120 | 40.4 | 5 | 10.3 | -74 |
| Pudukottai | 0.7 | -98 | 4.7 | -85 | 2.9 | -90 |
| Ramanathapuram | 1.2 | -94 | 4.6 | -77 | 0.0 | -100 |
| Salem | 0.1 | -99 | 4.8 | -89 | 7.9 | -83 |
| Sivaganga | 19.2 | -29 | 4.2 | -85 | 2.9 | -92 |
| Thanjavur | 1.5 | -95 | 51.9 | 64 | 0.3 | -99 |
| Theni | 0.4 | -99 | 1.8 | -92 | 0.0 | -100 |
| Tirunelveli | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Tirupur | 0.7 | -97 | 0.0 | -100 | 0.0 | -100 |
| Tiruvallur | 0.7 | -98 | 38.3 | -2 | 1.9 | -95 |
| Tiruvannamalai | 15.4 | -58 | 56.0 | 48 | 29.2 | -40 |
| Tiruvarur | 2.1 | -92 | 50.1 | 64 | 3.3 | -90 |
| Toothukudi | 0.0 | -100 | 0.0 | -100 | 0.0 | -100 |
| Trichy | 0.3 | -99 | 33.2 | -10 | 2.8 | -93 |
| Vellore | 2.7 | -93 | 30.3 | -24 | 19.8 | -55 |
| Villupuram | 22.9 | -32 | 49.5 | 40 | 27.9 | -35 |
| Virudhunagar | 2.0 | -92 | 4.7 | -84 | 0.1 | -99 |
| Andhra Pradesh | | | | | | |
| Coastal Andhra Pradesh | | | | | | |
| East Godavari | 99.9 | 104 | 34.6 | -36 | 33.2 | -45 |
| Guntur | 123.3 | 175 | 46.5 | 14 | 33.0 | -6 |
| Krishna | 89.2 | 83 | 51.5 | 18 | 23.4 | -46 |
| Nellore | 7.6 | -77 | 6.4 | -83 | 6.8 | -82 |
| Prakasam | 27.3 | -34 | 6.8 | -84 | 6.5 | -83 |
| Sirkakulam | 125.2 | 176 | 78.5 | 49 | 46.0 | -17 |
| Visakhapatnam | 124.6 | 184 | 44.7 | -26 | 48.1 | -14 |
| Vizianagram | 137.1 | 193 | 49.8 | 3 | 51.9 | 0 |
| West Godavari | 124.8 | 155 | 28.6 | -44 | 21.6 | -64 |
| Rayalaseema | | | | | | |
| Anantapur | 15.6 | -54 | 6.2 | -85 | 2.4 | -93 |
| Chittoor | 2.7 | -92 | 28.2 | -32 | 11.5 | -72 |
| Cuddapah | 21.6 | -34 | 12.3 | -66 | 5.4 | -84 |
| Kurnool | 51.6 | 27 | 13.1 | -67 | 6.7 | -76 |
| Telangana | | | | | | |
| Adilabad | 147.6 | 309 | 37.0 | 44 | 64.0 | 178 |
| Hyderabad | 112.5 | 146 | 23.9 | -8 | 39.5 | 34 |
| Karimnagar | 186.2 | 377 | 13.3 | -51 | 76.2 | 197 |
| Khammam | 125.6 | 203 | 37.4 | -1 | 70.3 | 108 |
| Mehabubnagar | 87.4 | 98 | 12.0 | -65 | 6.9 | -74 |
| Medak | 265.3 | 633 | 65.2 | 134 | 28.4 | 11 |
| Nalgonda | 130.0 | 212 | 23.7 | -32 | 27.8 | -16 |
| Nizamabad | 336.1 | 804 | 56.5 | 95 | 39.6 | 53 |
| Rangareddy | 136.5 | 184 | 10.3 | -67 | 20.6 | -31 |
| Warangal | 211.3 | 540 | 5.8 | -79 | 54.8 | 107 |

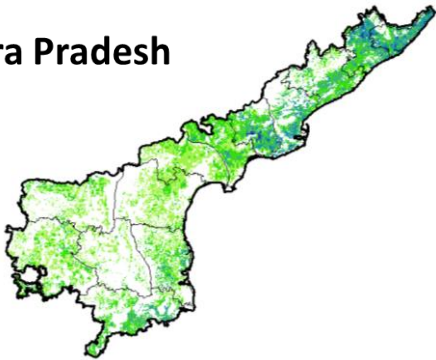
Legends

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

Annexure II

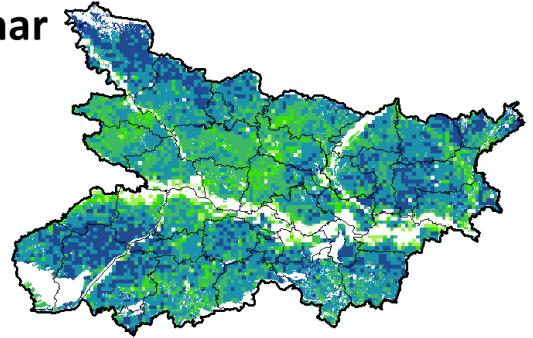
NOAA/AVHRR NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
13th October 2016 FOR DIFFERENT STATES

Andhra Pradesh



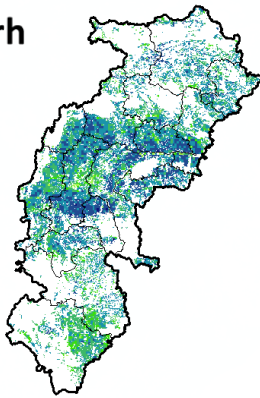
Agriculture vigour is moderate over central and southern part whereas, northern coastal parts show good NDVI in the state of Andhra Pradesh.

Bihar



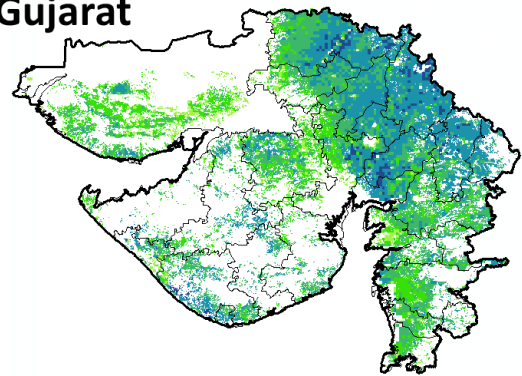
Agriculture vigour is moderate over few patches in central parts of Bihar whereas southern and northern part shows good to very good NDVI values

Chhattisgarh



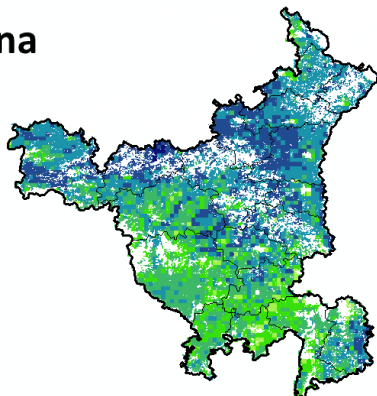
griculture vigour is moderate in southern region whereas, good vigour is seen in central and northern region of Chhattisgarh.

Gujarat



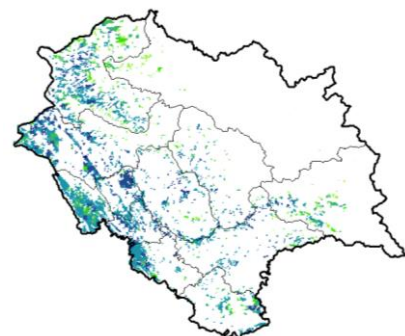
Moderate NDVI values are observed in patches in Saurashtra region whereas, good to very good NDVI is observed in Gujarat.

Haryana



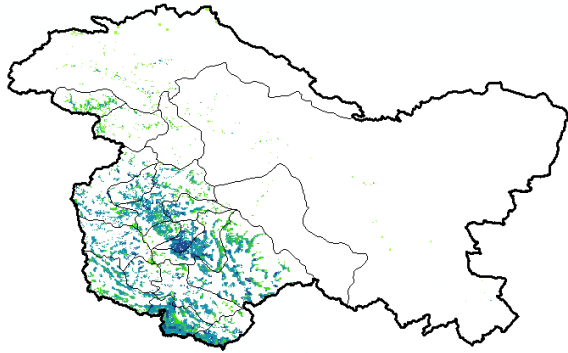
Agriculture vigour is moderate in patches over southern region whereas, good & very good agriculture vigour is observed in rest of the state.

Himachal Pradesh



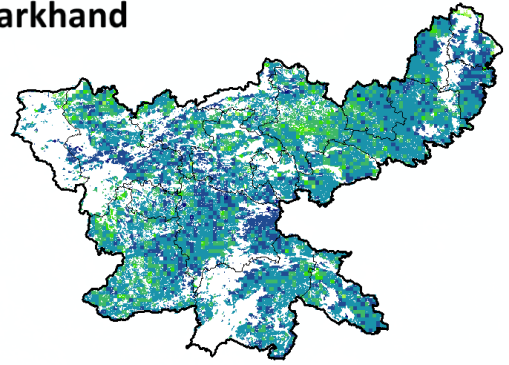
Agriculture vigour is good to very good over southern parts of Himachal Pradesh.

Jammu & Kashmir



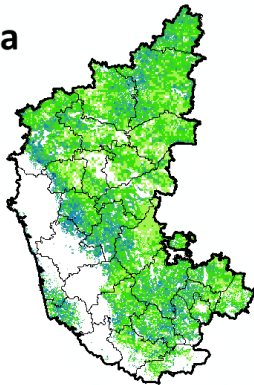
Agriculture vigour is good to very good over south western part of Jammu & Kashmir, whereas the remaining region shows moderate NDVI.

Jharkhand



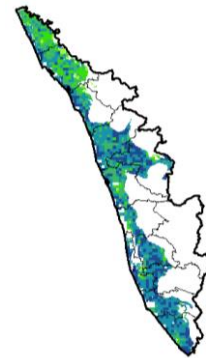
Agriculture vigour is very good over few patches in central region of Jharkhand whereas, remaining states shows good NDVI values.

Karnataka



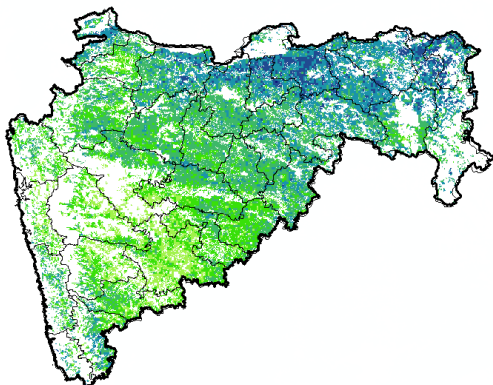
Agriculture vigour is moderate over northern region of the state whereas good vigour is observed in the central and patches in southern regions.

Kerala



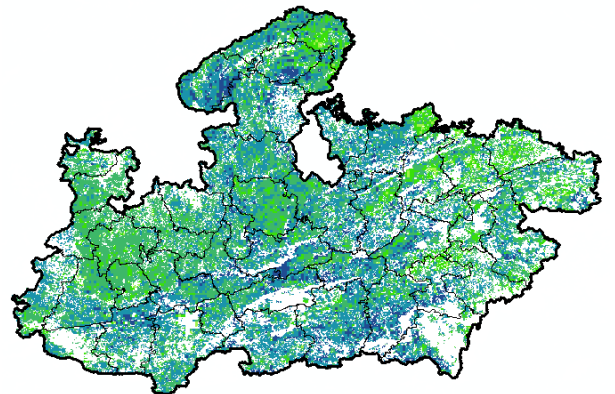
Agriculture vigour is good over entire state of Kerala except northern part which shows moderate NDVI values.

Maharashtra



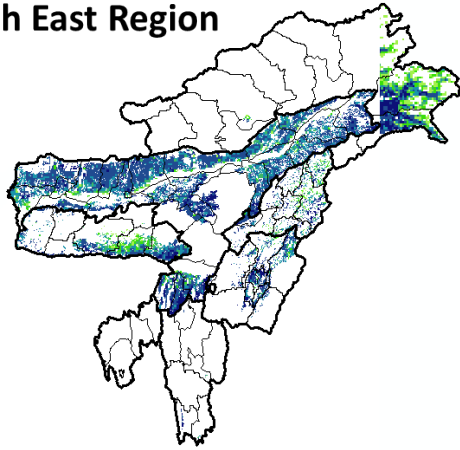
Agricultural vigour is moderate over coastal and central Maharashtra whereas, good to very good vigour is observed in the north and eastern regions.

Madhya Pradesh



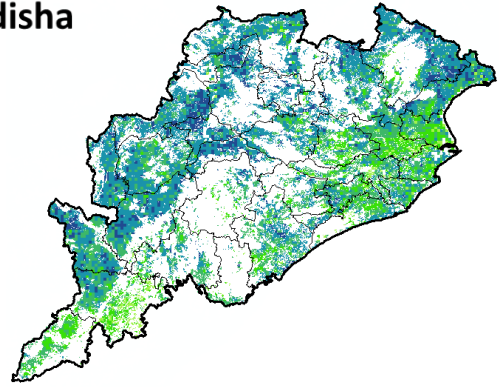
Agriculture vigour is moderate over patches in eastern region of the state of Madhya Pradesh whereas, good & very good vigour is observed over central, western and northern region.

North East Region



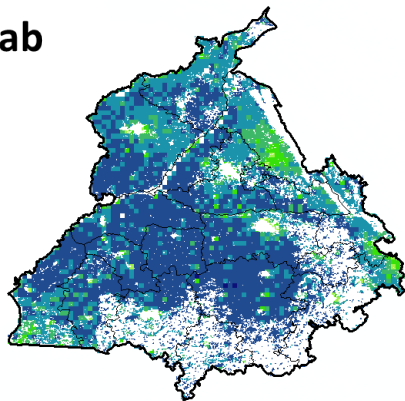
Agriculture vigour is good & very good over north-east states of country.

Odisha



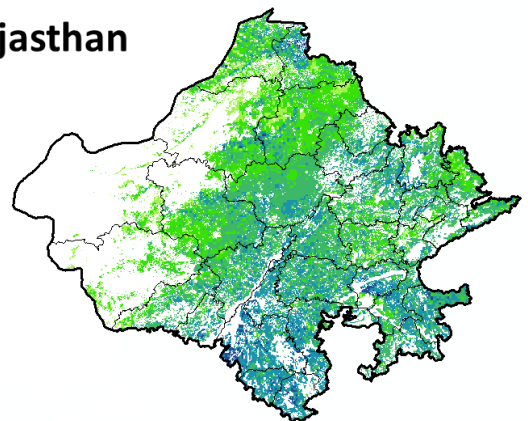
Agricultural vigour is moderate over coastal region of Odisha whereas, good to very good vigour is observed in western region.

Punjab



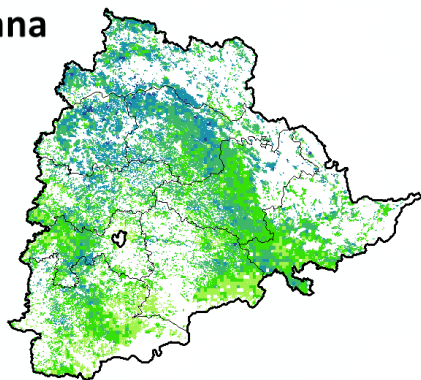
Agricultural vigour is very good over the entire state of Punjab.

Rajasthan



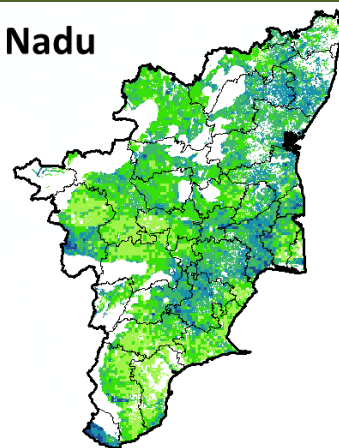
Agriculture vigour is moderate over western Rajasthan whereas, good vigour is observed over central and eastern region.

Telangana

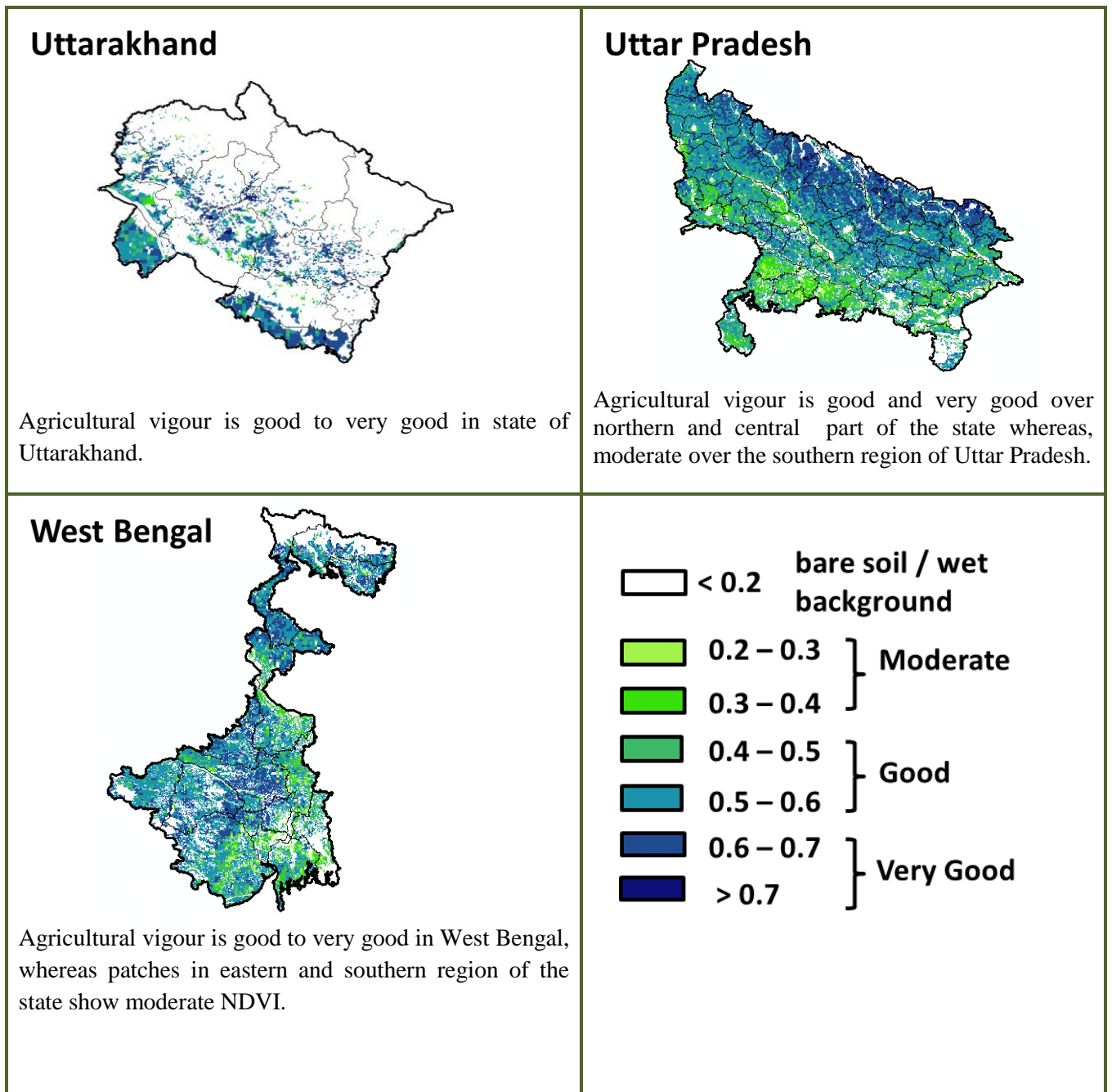


Agriculture vigour is good to moderate over entire state of Telangana whereas, good vigour is observed in patches in the north western region.

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
Black 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 Kufri Ashoka.
Mustard: Narendra ageti, rai-4, Varuna (T59), Basti (Pili), rohini, Maya, Narendra swarna-rai-8(pili), Narendra rai (NDR-8501), vaibhav.
Kabuli gram: chamatkar, Pusa-1003, Subhra as good varieties.

Pea: Rachna, Pantmatar-5, Aparna Malviya Matar-2, Malviya Matar-15, Shikha and Sapna are good varieties.
Radish: kalyanpur No.1, Pusa Rashmi, Hisar selection-1, Japani Safed, pusa Chetaki, Pusa Himani, Pusa deshi, Arka Nishant and Jaunpuri.

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: Japani White, Hill queen, French Radish;

Spinach: Pusa Bharti.

Amaranths: Pusalal Chaulai, Pusa Kiran.

Ladyfinger: Pusa A-4.

Radish: Japani 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- Mahi Dhawal, PEHM- 2, Pratap Hybrid Maize-1, Pratap Makka-3, Pratap Makka-5, Bio-9637, Bio-9681, Pratap

HQPM-1, Pratap Hybrid Maize-3, Pratap Makka-9

Ageti-76, Bassi Selected, Mahi Kanchan

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

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: Pusa Keshar 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, pusamakhamali.

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.

Madhya Pradesh

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

(Non irrigated- JW 3288, 3173).

Gram: JG 130, JG 218, JG 11, JG 16,JG 6, JG 315, RVJ 202.

Garlic: G 282, 223.

Lentil: RVL 31, JL 2.

Chhattisgarh

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

Toria: Indira toria-1, Pant toria-30 & T-9.

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 Muguthi, 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 C0-4 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.