



National Agromet Advisory Service Bulletin



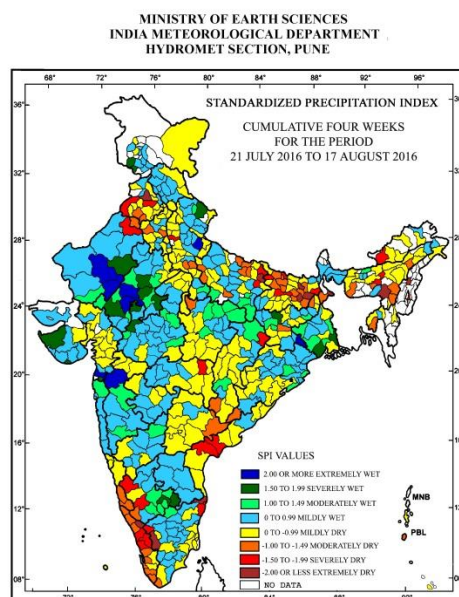
Friday 19th August 2016
(For the period 19th to 23rd August 2016)



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National Agrometeorological Advisory Service Centre,
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Weblink For
District AAS Bulletin: <http://www.imdagrimet.gov.in/node/3545>
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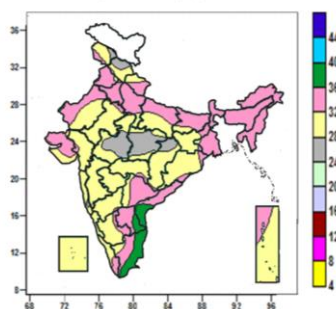
Standardised Precipitation Index Four Weekly for the Period 21st July to 17th August 2016



- Extremely/severely wet conditions experienced in few districts of Rajasthan; Saurashtra & Kutch; East Midnapore, North 24 Parganas, South 24 Parganas districts of West Bengal; Chatra, East Singhbhum districts of Jharkhand; Bareilly district of Uttar Pradesh; Chamoli district of Uttarakhand; Jammu, Rajouri districts of Jammu & Kashmir; Neemuch, Ratlam districts of Madhya Pradesh; Valsad, Dadara & Nagar Haveli districts of Gujarat Region; Jam Nagar, Diu Districts of Saurashtra & Kutch; Nashik district of Maharashtra; Bangalore Rural, Kolar districts of Karnataka.
- Extremely/Severely dry conditions experienced in West Kameng district of Arunachal Pradesh; Morigaon, Kamrup Metro districts of Assam; Jaintia Hills district of Meghalaya; Imphal East District of Manipur; Kohima District of Nagaland; South Dinajpur district of West Bengal; Bhagalpur, Gopalganj, Katihar, Monghyr, Patna, Saharsa, Sitamarhi districts of Bihar; Deoria, Kushi Nagar, Mau, Ghaziabad districts of Uttar Pradesh; Ferozepur, Jalandhar, Ludhiana districts of Punjab; Hanumangarh district of Rajasthan; Bhandara district of Maharashtra; Jashpur district of Chhattisgarh; Guntur, Krishna districts of Andhra Pradesh; Chennai, Coimbatore, Kanchipuram, Nilgiri, Tiruvallur districts of Tamil Nadu; Hassan, Shimoga districts of Karnataka; Malappuram, Palakkad, Thrissur, Wynad districts of Kerala.
- Moderately dry conditions experienced in many districts of Meghalaya; few districts of Bihar and Kerala; Cachar, N. C. Hills, Jorhat districts of Assam; South Tripura district of Tripura; Malda district of West Bengal; Malkangiri district of Odisha; Godda, Ranchi districts of Jharkhand; Balrampur, Basti, Kannauj, Kanpur Dehat, Kaushambi, Sant Kabir Nagar, Siddharth Nagar, Firozabad, Mainpuri districts of Uttar Pradesh; Hissar, Sirsa, Sonapat districts of Haryana; Bhatinda, Mansa districts of Punjab; Tikamgarh district of Madhya Pradesh; Bijapur district of Chhattisgarh; Khammam district of Telangana; Kanyakumari district of Tamil Nadu; Dakshin Kannada, Udupi, Kodagu districts of Karnataka.
- Rest of the country experienced moderately wet mildly dry/mildly wet conditions.

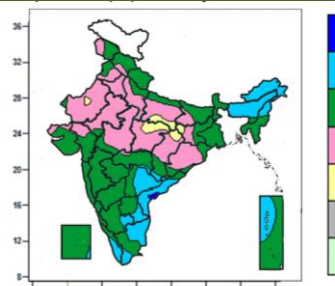
Contour maps for Mean Maximum and Minimum Temperature and their anomaly for the week ending on 17.08.2016

Actual Mean Maximum Temperature (°C) in India for the week ending 17.08.2016



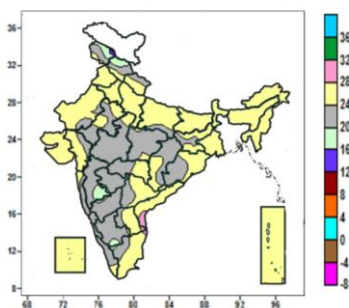
- Mean maximum temperature was between 36 to 40°C over some parts of Coastal Andhra Pradesh, Rayalaseema and Tamil Nadu and isolated pockets of West Rajasthan.
- Mean maximum temperature was between 28 to 36°C over rest of the country except over many parts of East Madhya Pradesh, some parts of Jammu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

Mean Maximum Temperature (°C) Anomaly in India for the week ending 17.08.2016



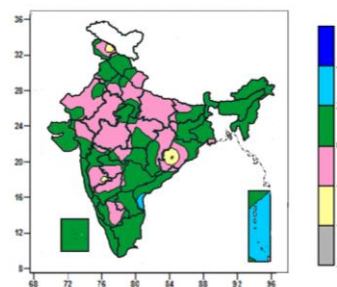
- Mean maximum temperature was above normal by 4 to 6°C over isolated pockets of Coastal Andhra Pradesh.
- Mean maximum temperature was above normal by 2 to 4°C over Arunachal Pradesh, Nagaland, many parts of Assam & Meghalaya, Telangana, Coastal Andhra Pradesh, Tamil Nadu, Kerala, some parts of Manipur,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

Actual Mean Minimum Temperature (°C) in India for the week ending 17.08.2016



- Mean minimum temperature was between 12 to 20°C over some parts of Jammu & Kashmir, Himachal Pradesh, Madhya Maharashtra and isolated pockets of Marathwada Interior Karnataka, Kerala and Tamil Nadu.
- Mean minimum temperature was between 20 to 28°C over rest of the country except some parts Coastal Andhra Pradesh and isolated pockets of Rayalaseema, and Tamil Nadu where it was between 28 to 32°C.

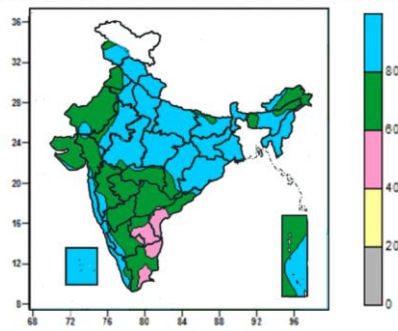
Mean Minimum Temperature (°C) Anomaly in India for the week ending 17.08.2016



- Mean minimum temperature was above normal by 2 to 4°C in many parts of Andaman & Nicobar Islands and some parts of Coastal Andhra Pradesh.
- Mean minimum temperature was normal to near normal over rest of the country except some parts of Jammu & Kashmir, Odisha and isolated pockets of Madhya Maharashtra, where it was below normal by 2 to 6°C.

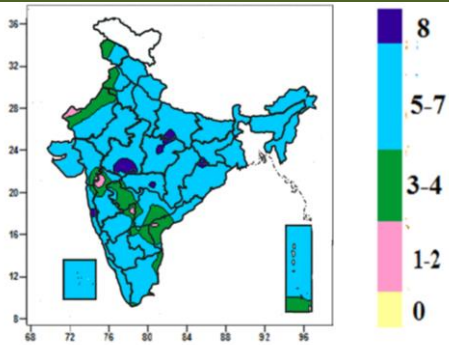
Contour maps for Relative Humidity, Cloud amount and Wind speed for the week ending on 17.08.2016

Relative Humidity (%) over India for the week ending 17.08.2016



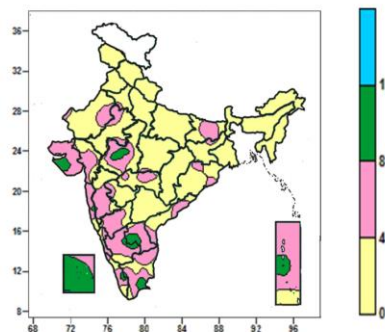
- Mean Relative Humidity was above 80% over Himachal Pradesh, Uttarakhand, Uttar Pradesh, Jharkhand, West Bengal, Nagaland, Manipur, Mizoram, Tripura, Lakshadweep, many parts of Jammu & Kashmir, Haryana & Delhi, East Rajasthan, Madhya Pradesh, Bihar, Odisha, Assam & Meghalaya, Konkan & Goa, Coastal Karnataka, Kerala, some parts of Arunachal Pradesh, Madhya Maharashtra, South Interior Karnataka, Andaman & Nicobar Islands and isolated pockets of Punjab, West Rajasthan, Gujarat, Vidarbha, Coastal Andhra Pradesh, North Interior Karnataka.
- Mean Relative Humidity was between 60 to 80% over rest of the country except many parts of Rayalaseema, some parts of Coastal Andhra Pradesh, Tamil Nadu and isolated pockets of Telangana, South Interior Karnataka, where it was between 40 to 60%.

Cloud amount (okta) over India for the week ending 17.08.2016



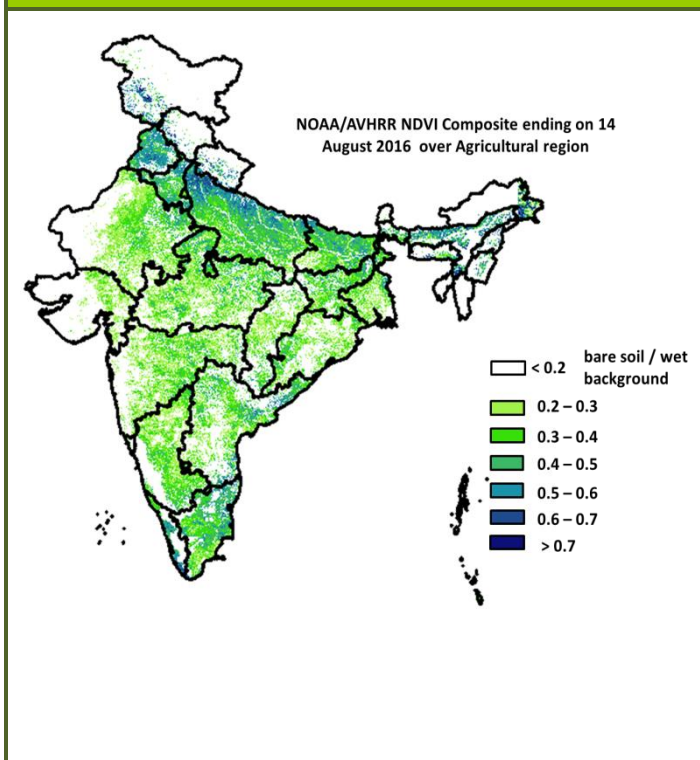
- Sky remained overcast (8 okta) over some parts of West Madhya Pradesh and isolated pockets of East Uttar Pradesh, East Madhya Pradesh, Jharkhand, Chhattisgarh, Odisha, Vidarbha, Konkan and Madhya Maharashtra.
- Sky remained generally cloudy (5-7okta) over rest of the country except many parts of Marathwada, some parts of Jammu & Kashmir, Punjab, West Rajasthan, Gujarat Region, Madhya Maharashtra, North Interior Karnataka, Telangana, Rayalaseema, Coastal Andhra Pradesh, Andaman & Nicobar Islands and isolated pockets of Haryana, Vidarbha, Konkan, South Interior Karnataka and Tamil Nadu, where it was partly cloudy/mainly clear sky (3-4/1-2 okta).

Wind speed (knots) over India for the week ending 17.08.2016



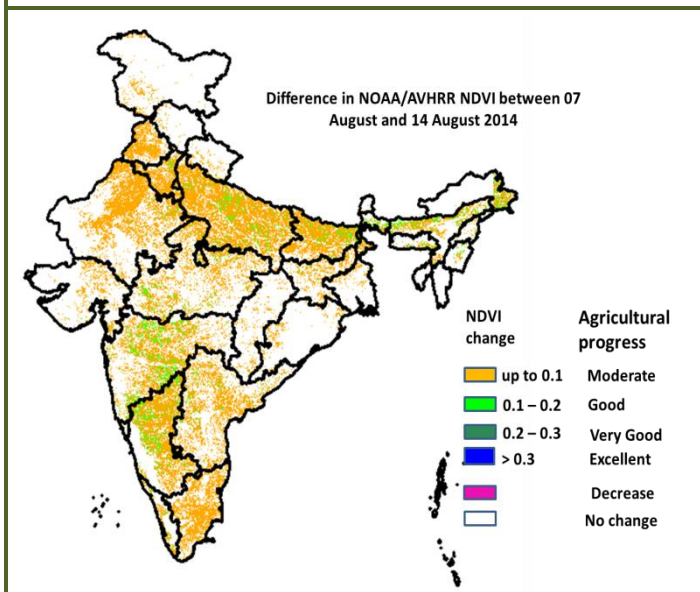
- Mean wind speed was between 8 to 12 knots over many parts of Lakshadweep, some parts of Saurashtra, Rayalaseema, Andaman & Nicobar Islands and isolated pockets of West Madhya Pradesh, Kutch, Konkan, Madhya Maharashtra, South Interior Karnataka, Kerala and Tamil Nadu.
- Mean wind speed was between 0 to 4 knots over rest of the country except many parts of Saurashtra & Kutch, Konkan Madhya Maharashtra, Karnataka, Rayalaseema, Kerala, Tamil Nadu, Andaman & Nicobar Islands, some parts of Rajasthan, West Madhya Pradesh, Gujarat Region, Vidarbha, Bihar, Odisha, Coastal Andhra Pradesh, Lakshadweep and isolated pockets of Haryana, Jharkhand, Marathwada and East Madhya Pradesh where it was between 4 to 8 knots.

NOAA/AVHRR NDVI COMPOSITE ENDING ON 14th AUGUST 2016 OVER AGRICULTURAL REGION OF INDIA



- Agricultural vigour is good in most parts of Kerala, North Tamil Nadu, Coastal Andhra Pradesh, northern parts of Uttar Pradesh, Punjab, Haryana, parts of east Bihar where NDVI varies from 0.5 to 0.7. NDVI is moderated in few parts of Bihar, Haryana, Gujarat, East Rajasthan, East Madhya Pradesh, Telangana, Andhra Pradesh, Karnataka, Tamil Nadu, Odisha, West Bengal and Jharkhand (NDVI 0.3 to 0.5). Agricultural growth was below moderate (< 0.3) over some patches of west Rajasthan, central Madhya Pradesh, north Interior Karnataka and some patches in Maharashtra.

DIFFERENCE IN NOAA/AVHRR NDVI BETWEEN 7th and 14th AUGUST 2016



- Good progress was observed in patches over Maharashtra, Karnataka, patches in North Haryana, patches in Uttar Pradesh, Bihar, Patches in Madhya Pradesh and North east region where, NDVI change ranges from 0.1-0.2. Moderate progress in NDVI was observed in Rajasthan, Punjab, Haryana, Uttar Pradesh, Bihar, and patches in west Bengal, Odisha, Andhra Pradesh, Tamil Nadu, Maharashtra and Gujarat.

- NOAA/AVHRR NDVI composite maps for the week ending on 18th August 2016 for different States are given in Annexure II.

Monsoon Watch

- Yesterday, southwest monsoon was vigorous over Jharkhand and Gangetic West Bengal.

Weather Forecast for next 5 days valid upto 0830 hours of 24th August 2016

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

5 Day Rainfall Forecast (MID DAY) 19th August 2016

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

% 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

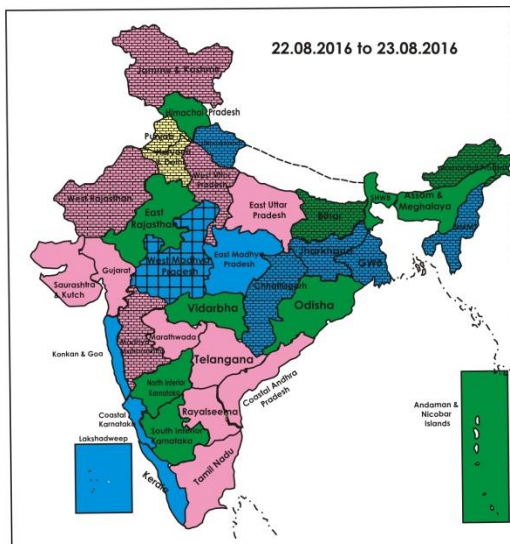
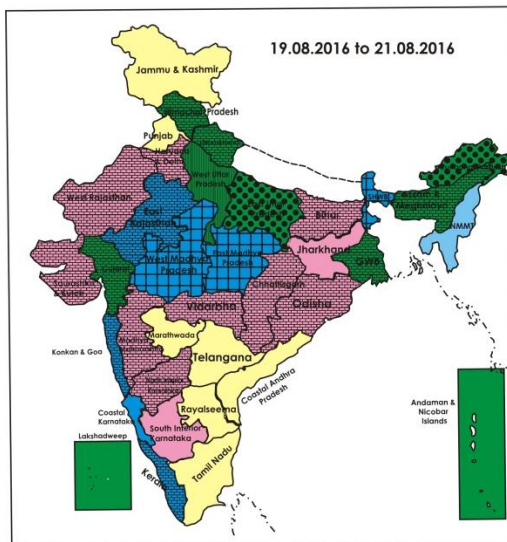
- 19 August (Day 1):** Heavy to very heavy rain very likely at isolated places with extremely heavy falls at isolated places over West Madhya Pradesh; heavy to very heavy at isolated places over East Madhya Pradesh; heavy at isolated places over West Uttar Pradesh and East Rajasthan.
- 20 August (Day 2):** Heavy to very heavy rain very likely at isolated places with extremely heavy falls at isolated places over West Madhya Pradesh; Heavy to very heavy rain very likely at a few places over East Rajasthan and heavy at isolated places over Gujarat region.
- 21 August (Day 3):** Heavy to very heavy rain very likely at isolated places over Gangetic West Bengal. Heavy rain very likely at isolated places over East Rajasthan, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Gujarat region.

- **22 August (Day 4):** Heavy rain very likely at isolated places over East Madhya Pradesh, Chhattisgarh, Jharkhand, Gangetic West Bengal, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Tamilnadu.
- **23 August (Day 5):** Heavy rain very likely at isolated places over Madhya Pradesh, Konkan & Goa and Coastal Karnataka.

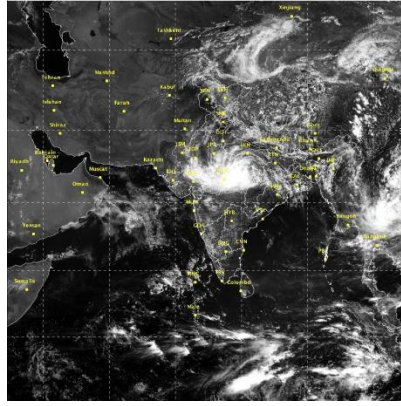
Weather Outlook for subsequent 2 days from 24th to 26th August 2016

- Rain at many places very likely along west coast and over central India and Andaman & Nicobar Islands.
- Rain at a few places very likely over northwest, east and northeast India.

Weather Forecast Map (valid upto 0830 hours of 24th August, 2016)



Satellite image dated, 19.08.2016 0600 UTC



Salient Advisories

- The **Deep Depression** over extreme south Uttar Pradesh & adjoining northeast Madhya Pradesh moved westwards during past 3 hours and lay centred at 0830 hours IST of today, i.e 19th August 2016 over same area near Lat. 25.0°N & Long. 82.3°E, about 160 km east-northeast of Satna (Madhya Pradesh), 240 km east of Khajuraho (Madhya Pradesh). The system is likely to move nearly westwards and gradually weaken into a depression during next 24 hours. In association with the system, heavy to very heavy rain very likely at isolated places with extremely heavy falls at isolated places over **West Madhya Pradesh** on 19th and 20th, heavy to very heavy rain at isolated places over **East Madhya Pradesh** on 19th and heavy rain at isolated places over East Madhya Pradesh on 22nd and over **Chhattisgarh** on 22nd, heavy/heavy to very heavy rain very likely at a few places over **east Rajasthan** on 20th and heavy rain likely at isolated places on 19th & 21st and over **west Uttar Pradesh** on 19th August, provide adequate drainage in standing crop fields. Undertake sowing/transplanting of crops after current spells of heavy rain.
- In **East Madhya Pradesh**, in view of excess/normal rainfall activity during last few days and also rain is expected in next 2 days, drain out excess water from vegetables, maize and soybean crop fields in Chhatarpur, Panna, Shahdol, Satna and Umari districts and maintain adequate drainage in standing crop fields.
- In **Karnataka**, maintain 3-5 cm water level in transplanted rice. As there is deficient rainfall and also shortage of water in reservoirs, farmers in Chamrajnagar, Mandya and Mysuru districts of Southern Dry Zone are suggested to take up sowing of contingent crops like minor millet viz. foxtail millet, kodo millet, proso millet, ragi, jowar, maize and pulses like arhar, cowpea except green gram, black gram, niger and sesamum. Avoid sowing/planting of rice and sugarcane. Carry out intercultural operations in earlier sown maize and groundnut crops to control the weeds and to increase the moisture availability to crops. Undertake residue mulching in red gram and maize by using the residues of weeds, gliricidia and other green manure crops.
- In **Rayalaseema**, as mainly dry weather is prevailing, provide light irrigation (sprinkler irrigation) to groundnut and other standing crops to avoid moisture stress. Continue sowing of the following contingency crops-sorghum (CSH-9, CSH-13, CSH-14, PSV-15, PSV-19), bajra (ICTP8203, PBH 3), Korra (Prasad, Krishnadevaraya, Narashimharaya, Srilakshmi, Surya nandi), cowpea (C 152, GC3, CO-4, CO-5), sunflower (NDSH1, KBSH1, KBSH 44 and DRSH 1), green gram (LGG 407, LGG 450, LGG 460, MGG 295 and ML 267) and field bean (TFB-1 and TFB-5). In Chittoor district, continue transplanting of rice with irrigation.
- In Mahabubnagar, Nalgonda, Medak, Rangareddy, Khammam and Warangal districts in **South Telangana Zone**, in view of prevailing mainly dry weather condition, apply irrigation in maize, cotton, soybean by adopting alternate furrow method where ever irrigation facilities are available.
- In Dibrugarh, Golghat, Jorhat, Sivasagar and Tinsukia districts of Upper Brahmaputra Valley Zone of **Assam**, in flood

affected areas, in transplanted rice fields, some hills of rice crop may be damaged due to flood or any other reason. Fill those gaps by splitting healthy hills or by same seedlings if available in the nursery. Undertake nursery sowing of the seeds of photo-insensitive short duration rice varieties like Luit, Kopilee and Culture-1 in areas where the newly transplanted rice crop was totally damaged by floods. The seedlings (21 days old) of these varieties can be transplanted in the main field up to the 1st week of September. Continue transplanting of Sali rice seedlings in non-flood affected areas. Undertake sowing of *kharif* pulses like green gram and black gram and continue sowing of sesame.

- In **Marathwada**, in view of subdued rainfall activity during last few days, apply irrigation to soybean, late sown sorghum, pearl millet, turmeric and vegetables.
- As rain/thundershowers very likely at most places over **East Madhya Pradesh** on 19th, 22nd & 23rd, over **West Madhya Pradesh** from 19th, 20th & 23rd and at most/many places over **Chhattisgarh** on 22nd & 23rd August, at most/many places over **East Rajasthan** during the period and over **Uttarakhand** on 19th, 20th, 22nd & 23rd, at many places over **East & West Uttar Pradesh** on 19th, over **Himachal Pradesh** from 20th to 23rd August it is advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops.
- In Karimnagar, Nizamabad and Khammam districts in **North Telangana Zone**, in the prevailing weather, whitefly incidence was noticed in soybean. To control, spray Triazophos @ 1.5 ml/litre or Acetamiprid @ 0.2 g/litre of water.
- Normal agricultural activities is continued in rest part of the country.

Detailed Zonewise Agromet Advisories

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



Banana



Rice



Sugarcane



Red gram

- **Realised Rainfall:** Rainfall occurred in all the districts of Kerala except Alappuzha, Kottayam, Thiruvananthapuram and Thrissur, all districts of Coastal Karnataka, Kodagu and Shivamogga districts of South Interior Karnataka, Puducherry district of Tamil Nadu & Puducherry. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most places over Coastal Karnataka and most/many places over Kerala during the period, many places over North and South Interior Karnataka on 22nd & 23rd, farmers are advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Undertake rain water harvesting.
 - As heavy rain very likely at isolated places over Coastal Karnataka on 22nd & 23rd and over Tamil Nadu on 22nd August, provide adequate drainage in standing crop fields.
 - **Kerala:**
 - In Kerala, continue harvesting of Nendran bananas and tapping of rubber in Thiruvananthapuram district and continue planting of rubber seedlings in Pathanamthitta district. Remove suckers immediately after harvesting of Nendran bananas to reduce incidence of rhizome weevil.
 - In Kannur, Kasaragod, Malappuram and Kozhikode districts, continue nursery sowing vegetables and land preparation for upland cultivation of vegetables and planting of banana cultivars like Poovan, Palayankodan, Robusta etc.
 - In Idukki and Wayanad districts, undertake harvesting of matured bananas and cardamom.
 - In Palakkad, Ernakulam and Thrissur districts of Central Zone of Kerala, there is chance of yellowing in banana due to sucker Erwinia rot. It can be controlled by mixing Kocide @ 25 g and Streptocycline @ 6g in 25 ml of water and apply 5 litre of solution to each banana basin. There is a chance for sheath blight disease during rainy season in rice in panicle initiation stage. Apply Propiconazole 25 EC @ 500 ml per 1 hectare to control sheath blight after current spells of rain.

- In Idukki and Wayanad districts, take necessary control measures to control coffee berry borer in coffee. Apply NPK @ 40:30:40 Kg/hectare.
- In Kottayam district, there is a chance of attack of thrips in rice. For controlling the attack of rice thrips, apply 250 ml of DDVP 100 EC/AF formulation/Rogor @ 2 ml/litre of water.
- In Kannur, Kasaragod, Malappuram and Kozhikode districts, prevailing weather conditions are congenial for incidence of tanjore wilt disease in coconut. Apply organic manure @ 50 kg/palm and neem cake @ 5kg/palm/year and 40 litres of 1% of Bordeaux mixture to soak soil upto 15cm depth at quarterly intervals to control the disease.
- In Thiruvananthapuram district, high humidity is congenial for incidence of leaf folder in rice. To control, open the rolled leaves using a thorny twig and spray Ekalux after current spells of rain.
- **Karnataka:**
 - In Karnataka, maintain 3-5 cm water level in transplanted rice. Make use of stored rain water for protective irrigation (wherever required) in Interior Karnataka during the dry spell.
 - As there is deficient rainfall and also shortage of water in reservoirs, farmers in Chamrajnagar, Mandya and Mysuru districts of Southern Dry Zone farmers are suggested to take up sowing of contingent crops like miner millet viz. foxtail millet, kodo millet, proso millet, ragi, jowar, maize and pulses like avare, cowpea except green gram, black gram, niger and sesamum. Avoid sowing/planting of rice and sugarcane.
 - Complete transplanting of rice in Ballari, Kalaburgi, Koppal, Raichur and Yadgir districts of North East Dry Zone. Complete transplanting of rice by end of August in Uttar Kannada district.
 - Complete sowing of ragi in Ramnagara district, continue sowing of short duration crops like ragi and maize in Bengaluru Rural and Bengaluru Urban districts of Eastern Dry Zone under sufficient moisture condition. Carry out intercultural operations in earlier sown maize and groundnut crops to control the weeds and to increase the moisture availability to crops. Undertake residue mulching in red gram and maize by using the residues of weeds, gliricidia and other green manure crops grown on the bunds, borders and along the drainage lines. Make use of stored rain water for protective irrigation during the dry spell.
 - Carry out intercultural operations in red gram on a non rainy day in Chikkamagaluru, Hassan districts of Southern Transition Zone.
 - Continue harvesting of matured green gram in clear weather, complete sowing of minor millet in Vijayapura, Gadag and Bagalkote districts of North Dry Zone with sufficient moisture condition. Carry out weeding in groundnut crop.
 - Carry out weeding/intercultural operations to conserve soil moisture and earthing-up of rows in soybean and pigeon pea in Bidar district of North East Transition Zone.
 - Infestation of root grub is observed in rice in some areas of Sirsi district of Hill Zone; for control apply Phorate @ 5 kg/acre. There is chance of attack of stem borer in ginger, turmeric and cardomom; for control, spray Chloropyriphos @ 2 ml per litre of water on non-rainy day.
 - Infestation of wilt is noticed in tomato, chilli and capsicum crops in Chamrajnagar, Mandya and Mysuru districts; to manage this, uproot the affected plants and spray Copper Oxylchloride @ 3 g + 500 mg Streptomycin Sulphate/litre of water on non-rainy day.
 - Infestation of leaf eating Spodoptera litura was noticed in green gram, black gram in North East Transition Zone; take the spraying with @ 1ml Bt bacteria or Triazophos 40 E.C @ 2 ml or Lambda Cyhalothin 5 E.C. 0.5 ml/litre of water for control.
- **Andhra Pradesh:**
 - In Srikakulam, Vizianagaram and Vishakapatnam districts, continue pre-emergence spraying of Pretilachlor with safener @ 400 ml/acre within three days of sowing to control weed problem in direct sown rice.
 - In West Godavari, Krishna, Prakasam, Guntur and Krishna districts, continue nursery sowing of rice, sowing of red gram, black gram and green gram, only if irrigation sources are available. Present mainly dry weather conditions are congenial for Boron deficiency in cotton crop which results in early fruit drops. To manage, spray borax @ 1 – 1.5 g/litre of water twice a week.
 - In Rayalaseema, provide light irrigation(sprinkler irrigation) to groundnut and other standing crops to avoid moisture stress. Continue sowing of the following contingency crops-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) and field bean(TFB-1 TFB-5). In Chittoor district, continue transplanting of rice under irrigation.
 - In Kadapa and Nellore districts, prevailing weather condition (partially cloudy with light rains) is congenial for incidence of sucking pests (jassids and mealy bugs) in cotton. To control, spray Prophenophos or Diphenhiuron @ 1.25 g/litre of water.
 - In Srikakulam, Vizianagaram and Vishakapatnam districts, prevailing weather conditions, are congenial for incidence of foot and stem rot in mesta(vegetative stage). To control, spray Ridomil @ 12 g/litre of water when disease symptoms are noticed.
 - In Rayalaseema, in Kurnool district, sucking pest incidence was noticed in cotton.To control, spray Moncrotosphos @ 1.6ml/litre of water.
 - In Coastal Andhra Pradesh, yellow mosaic virus incidence is observed in greengram and blackgram crops in Guntur, West Godavari and Nellore districts. Farmers are advised to pull out the infested plants and take control measures for whitefly by spraying Acetamiprid @ 0.6g/litre or acephate @ 1.5g/litre of water. They can keep yellow sticky traps in the field to monitor and trap whiteflies.

▪ **Telangana:**

- In Mahabubnagar, Nalgonda, Medak, Rangareddy, Khammam and Warangal districts (South Telangana Zone), in view of mainly dry weather forecast for next three days, farmers are advised to apply irrigation in maize, cotton, soybean by adopting alternate furrow method where ever irrigation facilities are available. To prevent seed borne diseases in vegetables, treat the seeds with fungicides before sowing and drench vegetable nursery bed with Copper-Oxy-Chloride @ 3 g/litre of water.
- In Mahabubnagar, Nalgonda, Medak, Rangareddy, Khammam and Warangal districts (South Telangana Zone), monitor for the incidence of semilooper in castor. If noticed, arrange bird perches @ 10 per acre, spray Neem oil @ 5 ml per litre of water to control early instar larvae and spray Acephate @ 1.5 g or Novoluron @ 1 ml or 1.5 g Thiodicarb per litre of water, if no natural parasitization is observed.
- In Karimnagar, Nizamabad and Khammam districts (North Telangana Zone), whiteflies incidence was noticed in soybean. To control, spray Triazophos @ 1.5 ml/litre or Acetamiprid @ 0.2 g/litre of water.

▪ **Tamil Nadu:**

- In Ariyalur, Nagapattinam, Perambalur, Thanjavur, Thiruvarur and Trichy districts, continue land preparation and sowing of Samba rice (varieties CR 1009 and ADT 50) after seed treatment with Pseudomonas Fluorescence 10g/kg of seed before sowing .
- In Coimbatore, Tiruppur, Erode districts, undertake sowing of irrigated winter combodia cotton. Apply 2nd top dressing Urea @ 25kg and Potash @10kg/acre on transplanted kar season rice and spray Ferrous sulphate, Zinc sulphate, Borax and Urea(375 g each) after mixing in 250 litres of water/hectare, twice at 25 days interval in irrigated turmeric.
- In the Southern Zone (Kanniwadi), since the wind speed is more than 13 KMPH, propping may be given to five months and old banana.
- In Kanyakumari district, since there is no rainfall, provide mulching and irrigation to nursery crops, pepper and other young fruit plants and undertake grafting and cutting of horticultural crops.
- In Ariyalur, Nagapattinam, Perambalur, Thanjavur, Thiruvarur and Trichy districts, leaf mite incidence is noticed in Kuruvai rice fields due to prevailing weather condition. To manage this, spray Dicofol @ 500 ml/acre, or Wetttable Sulphur @ 400g/acre with 200 litres of water.
- In the Southern Zone(Kanniwadi), to control hairy caterpillar in groundnut, spray Emamectin benzoate 5 SG @ 220 g/ha and undertake constant monitoring of sugarcane against shoot borers. If population of borer is above ETL, spray Carbofuran 3% G @ 10 kg/ acre .
- In Nilgiris district, widespread incidence of ash weevil is observed in horticultural crops. To control ash weevil, spray Phosalone 35 EC @ 1.5 ml/litre of water.
- Suitable varieties for sowing are given in Annexure III.

❖ **Animal Husbandry**

- In the Western Zone of Tamil Nadu, considering the present weather, which is conducive for many pathogen in milch animals, clean the udder with 1% Potassium permanganate before and after milking.
- In the Southern Zone(Kanniwadi), during hot part of the day, dairy cows should be showered with water to reduce heat stress and to sustain milk production.
- In Karnataka, for milch animals regularly follow schedule of 1 kg feed + 50 g mineral mixture /2 litres of milk yield. Feed animals with a mixture of green grass + hay + minerals + dry feed.

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



Banana



Rice



Groundnut



Jute

- **Realised Rainfall:** Rainfall occurred in Changlang, Lohit, Tawang, Tirap, Upper Siang and Upper Subansari districts of Arunachal Pradesh; Cachar, Dibrugarh, Goalpara, Hailakandi, Karbi Anglong, Karimganj, Lakhimpur, N. C. Hills, Sonitpur, Sibsagar and Tinsukia districts of Assam; East Khasi Hills of Meghalaya; Aizwal, Saiha and Serchhip districts of Mizoram; Imphal West district of Manipur; Dimapur, Kohima and Phek districts of Nagaland and all districts of Tripura. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at many places over Arunachal Pradesh on 21st & 22nd and over Assam & Meghalaya from 21st to 23rd and at most/many places over Nagaland, Manipur, Mizoram and Tripura from 20th to 23rd August, it is advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops.

- As heavy rain very likely at isolated places over Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura on 22nd & 23rd August, provide adequate drainage in standing crop fields.
- **Assam, Meghalaya & Arunachal Pradesh:**
 - In Dibrugarh, Golghat, Jorhat, Sivsagar and Tinsukia districts of Upper Brahmaputra Valley Zone, in flood affected areas farmers are advised to select local varieties like Monoharsali, Andreusali, Prasadbhog etc for seedling raising. Sow the seeds of these varieties in the nursery beds at the earliest. In transplanted rice fields, some hills of rice crop may be damaged due to flood or any other reason. Fill those gaps by splitting healthy hills or by same seedlings if available in the nursery. Sow the seeds of photo-insensitive short duration rice varieties like Luit, Kopilee and Culture-1 in areas where the newly transplanted rice crop was totally damaged by flood. The seedlings (21 days old) of these varieties can be transplanted in the main field up to the 1st week of September. Continue transplanting of Sali rice seedlings in non-flood affected areas. Continue sowing of sesame.
 - In Nagaon and Marigaon districts of Central Brahmaputra Valley Zone of Assam, continue sowing of green gram and black gram, arhar and sesame. Continue harvesting of early and timely sown olitorius jute.
 - In Lower Brahmaputra and Central Brahmaputra Valley Valley Zone and North Blank Plain Zone of Assam, continue transplanting of Sali rice. Undertake sowing of kharif pulses like green gram and black gram.
 - In Karimganj, Hailakandi and Cachar districts of Barak valley Zone of Assam, if the Sali rice fields get affected by the floods, those farmers are advised to sowing of early pulse crop like black gram and green gram in the affected fields. Continue transplanting of cauliflower in the main field.
 - In Karbi Anglong and NC Hills districts of Hill Zone of Assam, continue sowing of sesame, radish and nursery sowing of early cauliflower. Complete sowing of arhar. Replanting of dead hills or gap filling with seedlings of similar age should be done within 7-10 days of transplanting of Sali rice. Undertake land preparation and sowing of kharif pulses like green gram and black gram and main land preparation for transplanting of early cauliflower/broccoli, radish.
 - In Dhemaji, Darrang, Lakhimpur and Sonitpur districts of North Blank Plain Zone of Assam, continue nursery sowing of early cauliflower. Undertake sowing of kharif sesame.
 - In East Garo Hills, East Khasi Hills, Jaintia Hills, Ri-Bhoi, South Garo Hills, West Garo Hills and West Khasi Hills districts of Meghalaya, continue transplanting of Sali/kharif rice. Undertake replanting of dead hills or gap filling with seedlings of similar age within 7-10 days of transplanting.
 - In Arunachal Pradesh, undertake weeding in WRC in order to enhance tillering and growth for higher yield. Continue sowing of black gram and green gram.
 - In Arunachal Pradesh, for management of pod borer in pulses at fruiting stage, spray Fipronil@2ml/ 10 litre against pod borer. Also spray Carbendazim/Mancozeb @ 1-2 ml/litre of water against leaf spot/ tikka disease in groundnut at pegging stage. Undertake plant protection measures after current spells of rain.
 - In Hill Zone of Assam, spray Quinalphos @ 2 teaspoonful/5 litre of water against rice hispa attack in Sali rice at tillering stage.
 - In Lower Brahmaputra Valley Zone and North Blank Plain Zone of Assam, apply Chloropyriphos 20EC (0.02%) or Quinolphos 25EC (0.025%) or Carbofuran 3G(0.05%) or Monocrotophos 40 EC @ 1.5ml per litre of water against hispa in Sali rice.
 - In Barak valley Zone of Assam, due to high relative humidity, there is chance of mosaic and leaf curl in papaya. Rouge out the affected plant or spray of Rogar @ 0.1%.
 - In Meghalaya, spray Malathion 5% dust @ 6.25kg/ha for rice gandhi bug and Chloropyriphos @ 0.02% or Monocrotophos @ 0.04% for stem borer in jhum rice at flowering stage. For management of pests like hairy caterpillar, semilooper, leaf roller and flea beetle in soybean, spray Dichlorvos 100 EC @ 0.5 ml/litre or Chlorpyriphos 20 EC @ 1 ml/litre. Undertake plant protection measures after current spells of rain.
- **Nagaland, Manipur, Mizoram and Tripura:**
 - In Dimapur, Kephire, Kohima, Longleng, Mokochung, Mon, Paren, Phek, Tuensang, Wokha and Zunheboto districts of Nagaland, Continue harvesting of maize in clear weather. Farmers are advised to maintain good drainage in ginger and turmeric fields to avoid rhizome rot. Timely field sanitation should be done for all the crops. Always use freshly prepared neem seed kernel extract as pesticide. Apply pesticides only when required and not more than the recommended dose of the pesticide.
 - In Bishnupur, Chandel, Churachandpur, Imphal East, Imphal West, Senapati, Tamenglong, Thoubal and Ukhrul districts of Manipur, continue nursery raising of early cauliflower. Continue harvesting of matured cobs of maize in clear weather.
 - In Aizwal, Champhai, Chhimtui, Kolasib, Lawngtlai, Lunglei, Mamit, Saiha and Serchhip districts of Mizoram, continue planting of khasi mandarin/acid lime. Continue harvesting of pre-kharif maize in clear weather.
 - In Dhalai, North Tripura, South Tripura and West Tripura districts of Tripura, in SRI field of Aman rice maintain aerobic condition through proper drainage.
 - In Mizoram, weather is conducive for attack of yellow stem borer in pre-kharif rice. Apply Imidacloprid @ 0.5 ml or Phosolone @ 1.5 ml or Dimethoate 2 ml/litre of water. 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 aphid and bug in kharif pulses like green gram, black gram and rajma. Undertake plant protection measures after current spells of rain.
 - In Manipur, there is chance of attack of red hairy caterpillars in soybean at vegetative stage and tikka disease in groundnut. For control of red hairy caterpillars in soybean, dust 5% Malathion @ 20 kg/ha or spray Dichlorvos 76

EC 0.05% @ 0.6ml/litre of water. Spray Carbendazim @ 0.5g/litre of water to control tikka disease in groundnut. To prevent rhizome rot in turmeric/ginger, spray Redomil MZ 72 W.P. @ 2 g/litre of water. Undertake plant protection measures after current spells of rain.

- In Tripura, cloudy and humid weather is conducive for the attack of fruit borer in brinjal, chilli etc. To manage the attack, apply Imidachloprid @ 2ml per litre of water. Take care from the attack of insect/pest in jhum rice at panicle emergence. Apply the solution of Neem or FYM as precautionary measures. Undertake plant protection measures after current spells of rain

- Suitable varieties for sowing are given in Annexure III.

❖ **Animal Husbandry**

- In Northeastern states, carry out immunizations against FMD, HS and BQ in cattle & buffaloes and swine fever in pigs during monsoon season. Carry out vaccination (RDF1) against Ranikhet disease in one week old chicks and Gamboro disease in two weeks old chicks. Prevent the livestock from feeding rotten grasses after flood. Instead, feed the animals with concentrate and green grasses along with vitamins and mineral supplements. After recession of flood, domestic animals are infected by worms. To reduce the problem, it is advised to give appropriate medicine at recommended dose in consultation with local veterinary doctor.
- In Nagaland, high humidity is favourable for occurrence of coccidial disease in poultry, provide anti-coccidial drugs.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Maize



Groundnut



Rice



Red gram

- **Realised Rainfall:** Rainfall occurred in all districts of Konkan & Goa except Mumbai Suburban, in Kolhapur and Nandurbar districts of Madhya Maharashtra, in Gadchiroli district of Vidarbha, in Chhota Udepur, Dangs, Narmada, Surat, Tapi and Valsad districts of Gujarat Region. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most/many places over Konkan & Goa during the period, at many places over Vidarbha on 22nd & 23rd and over Gujarat Region on 20th & 21st along with heavy rain very likely at isolated places over Gujarat Region on 20th & 21st and over Konkan & Goa on 23rd August, postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops. Provide adequate drainage in standing crop fields.
 - **Maharashtra:**
 - In Konkan, maintain water level of 5 cm by bunding rice field. In Nagli, apply second dose of nitrogenous fertilizers @ 800 g of urea per Are (100 m²) with better intercultural operations in a clear weather. For control of fruit drop disease of Sapota, spray the trees with fungicide Ridomil (Metalaxyl 8% + Mancozeb 64%) at 0.2 per cent (20 ml/10 litres of water) concentration in a clear weather. (Add sticker @ 1 ml/1 litre of spray solution at the time of spraying of insecticides/fungicides). Continue planting of biennial forage crops like Paragrass, Napier, Gajraj etc.
 - In Madhya Maharashtra, farmers are advised to maintain water level of 3-5 cm in transplanted rice fields in Western Ghat Regions. Farmers are advised to undertake intercultural operations in *kharif* crops in Kolhapur, Sangli, Satara, Ahmednagar and Jalgaon districts. Continue planting of sugarcane. Instead of using sugarcane sets for planting use sugarcane seedlings for planting. Apply 50 kg urea and 50 kg MOP per hectare as a booster dose. Apply fertilizer to the crop by drip fertigation. In groundnut & soybean crop intercultural operations should be avoided at flowering stage. In Custard apple, spray 1% bormixture to avoid blackening of fruit.
 - In Marathwada, in view of subdued rainfall activity during last few days, apply irrigation to soybean, late sown sorghum, pearl millet, turmeric and vegetables. Spray potassium nitrate 2 % (200 gm per 10 liter of water) in soybean and late sown sorghum crop. Apply irrigation to soybean and late sown sorghum by sprinkler irrigation system only. Spray 2 % MOP and 2 % Urea on sugarcane crop. Apply mulching with the help of organic mulches and irrigate the crop through drip irrigation. Undertake dust mulching in cotton, pigeonpea and horticultural crops to reduce the loss of water by evaporation from soil. Continue plantation of fodder crops like Maize, Bajra and Napier grass upto end of August.
 - In Vidarbha, maintain 3-5 cm water level in transplanted rice fields in Nagpur, Bhandara, Gondia, Chandrapur and Gadchiroli districts. Proper bunding in rice field maybe done and remove all weeds on the bund. After weeding, apply 2nd dose of Nitrogen 40 kg/ha to rice crop after one month of transplanting. Apply second top dressing of fertilizers to early sown cotton which is at growing stage. Carry out weeding in cotton. Continue cultivation of vegetables like bitter gourd, tinda, cluster bean, cowpea, gourds etc.

- In Vidarbha, due to cloudy weather and rise in temperature, there may be incidence of sucking pest in cotton, apply Nimboli Arc of 5 % and after attaining ETL, apply foliar spray of Diemethoate 30 % EC 13 ml per 10 litres of water.
- Due to humid and warm weather in Madhya Maharastra and Marathwada, there may be incidence of black spot (anthracnose) in pomegranate, spray Hexaconazole @ 1 ml/litre of water.
- **Gujarat:**
 - Carry out sowing of castor (GCH-7), undertake weeding and other intercultural operations in sesame, cotton crop in Kachchh district of North West Zone.
 - Undertake transplanting of brinjal, chilli and early cauliflower with available soil moisture, carry out intercultural operations in pulses and pearl millet for creating soil mulch and removal of weeds in Amreli, Rajkot, Surendranagar and Jamnagar districts of North Saurashtra Zone.
 - In Saurashtra & Kutch, as mid-season corrections, continue sowing of Sorghum (fodder purpose) - CSH-6, GFS-4, GFS-5, GAFS-11, Sunflower - EC-68414, Modern GS-1, 2 & 3, Sesame - Gujarat sesame -1, 2, 3 & 4, Castor - GAUCH-1, GCH-2, GCH-4, 5, 6 & GCH-7.
 - Carry out gap filling, thinning in late sown pulses. Complete sowing of fodder sorghum in Bhavnagar and Ahmedabad districts. Carry out weeding and other intercultural operations in sesame, pearl millet and early sown pulses on a non-rainy day.
 - Maintain water level of 2-3 cm in rice fields in Navasari, Dangs and Valsad districts of South Gujarat Heavy Rainfall Zone. Carry out weeding and intercultural operations in transplanted rice. Carry out weeding in okra, weeding and hoeing in already planted forest saplings.
 - Carry out sowing of castor and fodder sorghum, transplanting of fennel and planting of saplings of fruit crops in Banaskantha, Mehsana, Gandhinagar, Patan and Sabarkantha districts. Carry out weeding and other intercultural operations in cotton, pearl millet and vegetable crops. Apply split dose of nitrogen @ 40 kg/ha in the form of urea in maize and pearl millet.
 - Maintain 2-3 cm water level in transplanted rice field. Carry out sowing of fodder sorghum in Dahod, Panchmahals, Kheda, Vadodara and Anand districts.
 - Infestation of white grub and aphid is observed in groundnut in North Gujarat Zone; for control of white grub, drenching with Chlorpyrifos 20 EC or Quinalphose 25 EC @ 4 litre/ha is advised and for control of aphids, spray Imidacloprid 17.8 % @ 5 ml or Thiomethoxam @ 3 g or Dimethoate @ 10 ml in 10 litres of water on non-rainy day is advised.
 - Due to prevailing weather condition there is chance of infestation of leaf spot disease in groundnut in North Saurashtra Zone; spray Hexaconazole @ 10 ml or Tebuconazole @ 7 ml in 10 litres of water on non-rainy day.
 - Infestation of pink bollworm in cotton is observed in North Gujarat Zone; for control, spray Quinalphose @ 20 ml in 10 litres of water and install 8-10 pheromone traps per ha in North Gujarat Zone. At the initiation of the root rot disease in cotton in North Gujarat Zone, drench Copper Oxochloride (50% WP) 0.2 % solution (40g/ 10 litres of water) around stem of the plants on a non-rainy day.
 - Suitable varieties for sowing are given in Annexure III.
- ❖ **Animal Husbandry**
 - In Gujarat region, keep fodder in safe place to avoid spoilage due to rainfall. Provide adequate drinking water to cattle.

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



Red gram



Okra



Maize



Rice

- **Realised Rainfall:** Rainfall occurred in all districts of Bihar except Bhojpur, Darbhanga, East Champaran, Gopalganj, Kishanganj, Madhepura, Madhubani and Sitamarhi, all districts of Jharkhand except Sahebganj, all districts of Gangetic West Bengal, all districts of Sub-Himalayan West Bengal and Sikkim except Cooch Behar, North Dinajpur, South Dinajpur and South Sikkim, all districts of Odisha except Bolangir, Gajapati, Ganjam, Nawapara, Nayagarh and Rayagada. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers likely at most/many places over Sub-Himalayan West Bengal & Sikkim and over Gangetic West Bengal from 21st to 23rd, at many places over Andaman & Nicobar Islands during the period, over Jharkhand and Odisha on 22nd & 23rd and over Bihar on 22nd August, it is advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops.

- As heavy/heavy to very heavy rain very likely at isolated places over Gangetic West Bengal on 21st & 22nd, over Sub-Himalayan West Bengal & Sikkim on 21st and over Jharkhand on 22nd August, provide adequate drainage in standing crop fields.
- **Odisha:**
 - In Odisha, maintain 3-5 cm water level in transplanted rice fields. Also drain out excess water from arhar, maize, green gram, black gram, sesame and ginger and turmeric vegetables fields, to avoid water stagnation. Undertake propping in sugarcane for protecting the crop from lodging due to rain and strong winds. Undertake sowing of vegetables like bhindi (Lady's finger), bean, French bean and nursery raising of tomato, cauliflower, cabbage.
 - In East and South Eastern Coastal Plain Zone, continue transplanting of rice and sowing of green gram, black gram, cow pea and sesame and planting of banana in uplands after current spells of heavy rain.
 - In Koraput and Nawarangpur districts, continue sowing of maize and other non paddy crops in upland condition.
 - In Mayurbhanj and Keonjhar districts, continue sowing of ragi and vegetables like Bhindi (Lady's finger), Bean, French bean, and nursery raising of Tomato, Cauliflower, Cabbage etc.
 - Continue transplanting of medium duration rice varieties in medium land and medium late duration varieties in low land in Nuapara and Kalahandi districts. Continue transplanting kharif rice in Malkangiri, Balasore, Bhadrak and Jajpur districts.
 - In Kalahandi and Nuapara districts of Western Undulating Zone, stem borer attack may occur in maize crop at 3-4 week stage. If damage is noticed, spray Traizophos 400 ml in 200 litre water per acre after current spells of rain.
 - In Kalahandi and Nuapara districts of Western Undulating Zone, sucking pests like aphids, jassids may infest the cotton crop at vegetative growth stage. At initial infestation spray neem oil 600ml/acre @ 3ml/litre of water after current spells of rain.
 - In Kalahandi and Nuapara districts Western Undulating Zone and in Angul and Dhenkanal districts of Mid Central Table Land Zone, to minimize infestation of early shoot borer on sugarcane crop, spray Triazophos 40 EC @ 2ml/litre of water after current spells of rain.
- **West Bengal:**
 - In South Dinajpur and Malda districts in Sub-Himalayan West Bengal, continue transplanting of Aman rice in the main fields. Undertake earthing up of early cauliflower, cabbage, Broccoli etc. with recommended dose of fertilizer. Start retting of Jute and after completion of retting it dry it in the sun.
 - In Darjeeling district of Hill Zone, maintain adequate drainage channel in ginger, turmeric and large cardamom fields and care should be taken to prevent water stagnation in the fields.
 - In Purba Medinipur and South 24 Parganas of Coastal Saline Zone, undertake seedbed preparation of early winter vegetables. Apply first top dressing in the field of Aman paddy. Maintain optimum water level in Aman field.
 - In Burdwan, Hooghly, Howrah, Murshidabad, Nadia, North 24 Parganas of New Alluvial Zone, continue transplanting of Aman rice. Keep one inch stagnant water in the field. After harvesting of jute, if Aman rice is not yet sown, then sow short duration varieties.
 - In Laterite and Red Soil Zone, in this weather condition, brown spot disease and stem borer attack may be found in rice. To control, spray with Mancozeb 75 WP @ 2g/litre of water at an interval of 10-12 days under clear weather condition. If the stem borer damage (Dead heart) is exceeding more than 5%, spray Chlorpyrifos 20% EC @ 2ml/litre at clear weather condition. Undertake plant protection measures after current spells of rain.
 - In New Alluvial Zone, in the prevailing temperature and humid condition, attack of Bihar hairy caterpillar and semilooper may be prevalent in jute. For control, apply Chlorpyrifos @ 1.5 ml per litre of water. Also to control leaf and collar-rot in betel vine, apply Blitox @ 4 g per litre of water thoroughly to the plant.
 - In Old Alluvial Zone, to control downy mildew in cucurbits, spray Metalaxyl +Mencozeb @ 2.5g/litre of water at 10-15 days intervals. Undertake plant protection measures after current spells of rain.
- **Andaman and Nicobar Islands:**
 - In North, south and Middle Andaman, raise the bund in the rice main field to 20 to 30 cm and store the rain water. Make small earth/rock filled check dam in the canals to store the runoff water. Prevailing weather is conducive for occurrence of damping off in chilli nursery. Apply Carbendazim @ 2 g/litre of water in Chilli nursery to control the disease.
- **Bihar:**
 - In South Bihar Alluvial Zone, maintain 2-3 cm water level in transplanted rice fields. After 6 to 7 days of transplanting, carry out the gap filling, if necessary. This is suitable time for hoeing & weeding to all crops and vegetables after that split dose of nitrogen should be broadcast for optimum growth.
 - In Araria, Katihar, Khagaria, Kishanganj, Madhepura, Purnea, Saharsa and Supaul districts in North East Alluvial Zone, undertake transplanting of chilli, brinjal and cauliflower in raised beds. Undertake intercultural operation in rice. Top dressing of 1/3rd urea (44 kg/ha) after 1st hand weeding at 25-30 days after transplanting and apply remaining 1/3rd urea (44 kg/ha) after 2nd hand weeding at 40-45 days after transplanting.
 - In Begusarai, Darbhanga, East Champaran, Gopalganj, Samastipur, West Champaran districts of North West Alluvial Plain Zone, continue transplanting of chilli and planting of pointed gourd. Weeding is advised in turmeric, ginger and kharif vegetables such as lady's finger (Bhindi), bottle guard, ridge guard, bitter guard, cucumber etc. Undertake nursery sowing of september pigeon pea and radish.
 - In North East Alluvial Zone, in the present weather situation, attack of stem borer may be enhanced in rice. To

control them spray with Imidacloprid 0.5ml/litre or Chlorpyrifos 20 EC @ 2-3 L/ha of water in evening. To control cutworm or white grub in *kharif* maize, apply 10 kg Phorate 10 G/ha. Undertake plant protection measures after current spells of rain.

- In South Bihar Alluvial Zone, there is chance of stem borer in maize. Spray of Carbrayl @ 2 g/litre of water after current spells of rain if infestation is above ETL.

■ **Jharkhand:**

- In Jharkhand, complete transplanting of rice in low and medium lands and sowing of maize, pigeon pea, pulses, oilseeds in fallow uplands and sowing of niger, lobia, rice bean, urd bean, moong bean, guar, sesame, linseed and castor in sloppy land.
- In Saraikela, East & West Singhbhum districts in South Eastern Plateau Zone of Jharkhand, complete transplanting of rice in low and medium lands. In fallow uplands, complete sowing of pigeon pea, pulses, oilseeds and in sloppy land, complete sowing of niger, lobia, rice bean, urd bean, moong bean, guar, sesame, linseed and castor.
- In Western Plateau Zone, undertake Inter-culture operation to control weeds in different *kharif* crops like Rice, Urd, Groundnut, Arhar, Maize, Mung etc. in uplands after current spells of rain. After weeding, broadcast urea as per the requirement of the crops.
- In Central and North Eastern parts of Jharkhand, complete transplanting of rice and complete sowing urad, sesame and undertake cultivation of improved varieties of sweet potato Birsa sakarkand-1 and Sri Bhadra with ridge and furrow method. Continue transplanting of marua and plantation of new trees. Repair the broken bunds of the fields to conserve rain water and incorporate, daincha or sunhemp in soil for green manuring in the standing crop.
- In North Eastern parts of Jharkhand, complete transplanting of rice, marua and planting of sweet potato, sowing of black gram and til, horse gram,plantation of new trees with realized and expected rainfall.
- In South Eastern Plateau Zone, in cucurbitaceous crops, if attack of red pumpkin beetle is found, spraying of Diclorvos 76 EC (DDVP) @ 1 ml/litre of water is advised after current spells of rain.
- 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 after current spells of rain. For control of adult caterpillar, provide bamboo perch in the fields for predatory birds.
- Suitable varieties for sowing are given in Annexure III.

❖ **Animal Husbandry**

- In Terai Zone of West Bengal, vaccinate cattle against BQ and HS (BQ, HS Vaccine/ HS+BQ).
- In North East Alluvial Zone of Bihar, during rainy season, avoid fly on the animal skin because Myiasis may be developed. Fumigation of the animal shed must be done. Animal shed washed with Phenyl.

CENTRAL INDIA [M.P., CHHATTISGARH]



Maize



Rice



Soybean



Red gram

- **Realised Rainfall:** Rainfall occurred in all districts of East Madhya Pradesh except Balaghat, Chhindwara, Sagar, Seoni and Tikamgarh, in Alirajpur, Bhind, Bhopal, Guna, Hoshangabad, Morena, Raisen, Rajgarh, Ratlam, Sehore, Sahajapur, Sheopur, Ujjain and Vidisha districts of West Madhya Pradesh, in Balrampur, Dantewada, Janjgir, Jashpur, Kanker, Kondagaon, Korba, Koriya, Mahasamund, Narayanpur, Raigarh, Surajpur and Surguja districts of Chhattisgarh. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain/thundershowers very likely at most places over East Madhya Pradesh on 19th, 22nd & 23rd, over West Madhya Pradesh from 19th, 20th & 23rd and at most/many places over Chhattisgarh on 22nd & 23rd August, it is advised to postpone irrigation, inter-cultural operations and application of plant protection measures and fertilizers to the standing crops.
 - As heavy to very heavy rain very likely at isolated places with extremely heavy falls at isolated places over West Madhya Pradesh on 19th and 20th, heavy to very heavy rain at isolated places over East Madhya Pradesh on 19th and heavy rain at isolated places over East Madhya Pradesh on 22nd and heavy rain at isolated places over Chhattisgarh on 22nd August, provide adequate drainage in standing crop fields.
- **Madhya Pradesh:**
 - In Madhya Pradesh, drain out excess water from vegetables, maize and soybean crop fields and maintain adequate drainage. Undertake nursery preparation for early cauliflower after current spells of heavy rain.
 - In Chhindwara and Betul districts, undertake nursery preparation for tomato, chili, brinjal, early cauliflower and raising of papaya seedlings after current spells of heavy rain.

- In Indore and Ujjain districts, continue planting of orchard crops like mango, lemon and guava, continue nursery preparation for cauliflower and transplanting of onion. Undertake intercultural operations in soybean and maize after current spells of rain.
- In Hoshangabad and Narsinghpur districts, continue nursery preparation for cauliflower, cabbage, carrot and radish after current spells of heavy rain. Undertake top dressing of nitrogen and potash fertilizer in maize after current spells of rain.
- In Tikamgarh district, continue weeding in paddy crop and apply the recommended nitrogen fertilizer after current spells of rain.
- In Jhabua, Alirajpur and Dhar districts, provide adequate drainage in crop fields. After weed control, apply 1/3 dose of recommended nitrogenous fertilizer 40-50 DAS in cereal crops and undertake earthing up in maize after current spells of rain.
- In Jhabua Hill Zone due to cloudy weather, there are chances of stem rot disease in ginger and turmeric, spray Blitox 50 @ 2.5g/litre of water after current spells of rain.
- In Bundelkhand Zone, due to humid weather there are chances of attack of semi lopper in soybean crop, spray Triazophos 40 E.C. @ 1.5 ml/litre of water after current spells of rain.
- **Chhattisgarh:**
 - In North Chhattisgarh, continue planting of orchard crops like Papaya, Guava, Mango, Litchi and Pomegranate. Continue nursery sowing of brinjal, tomato, chilli and onion in upland areas. Undertake intercultural operations in kharif crops on a non rainy day.
 - In Central Chhattisgarh, maintain 5 cm water in rice fields. Undertake intercultural operations in rice, sugarcane and vegetables after current spells of rain.
 - In South Chhattisgarh, undertake intercultural operations in rice and apply 2nd dose of Urea after current spells of rain. Undertake field preparation for sowing of crops like niger, horse gram, black gram and green gram.
 - In South Chhattisgarh, due to humid weather, there are chances of attack of blast in rice crop. For control spray Tricyclazole (Beem or Bon) @ 6g/10 litre of water after current spells of rain.
 - In Central Chhattisgarh due to cloudy weather there are chances of attack of leaf caterpillar in soybean, spray Triazophos @ 2ml/acre after current spells of rain.
 - Suitable varieties for sowing are given in Annexure III.
- ❖ **Animal Husbandry**
 - In Madhya Pradesh, vaccinate cattle for control of FMD and HS disease. Vaccinate goat to control PPR disease.
 - In Chhattisgarh, farmers are advised to carry out vaccination of their animals against Black Quarter, HS and Anthrax disease.

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



Groundnut



Maize



Rice



Okra

- **Realised Rainfall:** Rainfall occurred in Jammu, Kathua, Reasi and Udhampur districts of Jammu & Kashmir, all districts of Himachal Pradesh except Kinnaur, and Lahaul & Spiti, all districts of Uttarakhand, in Amritsar, Gurdaspur, Hoshiarpur, Kapurthala, Muktesar, Nawashahar, Ropar and Mohali districts of Punjab, all districts of Haryana except Fatehabad, Hissar, Kathial, Kurukshetra, Panchkkula and Sirsa, all districts of East Uttar Pradesh except Balrampur, Basti, Deoria, Kushinagar, Mau and Sidharthnagar, all districts of West Uttar Pradesh except Agra, GB Nagar, Lalitpur, Mahamayanagar and Meerut, all districts of East Rajasthan except Ajmer, Banswara, Dungarpur, Pratapgarh, Rajsamand and Udaipur, in Pali district of West Rajasthan. Weather remained mainly dry over rest of the region.
- **Advisories:**
 - As rain is very likely at most/many places over East Rajasthan during the period and over Uttarakhand on 19th, 20th, 22nd & 23rd, at many places over East & West Uttar Pradesh on 19th, over Himachal Pradesh from 20th to 23rd August, it is advised to postpone irrigation, intercultural operations and application of plant protection measures and fertilizers to the standing crops.
 - As heavy/heavy to very heavy rain very likely at a few/isolated places over East Rajasthan on 19th, 20th & 21st, heavy rain likely at isolated places over west Uttar Pradesh on 19th August, provide adequate drainage in standing crop fields to avoid water stagnation.
- **Rajasthan:**
 - In East Rajasthan, Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts of Sub Humid Southern Plain and

Aravali Hill Zone, undertake weeding and hoeing operation in maize, moongbean, urdbean, groundnut and cotton crops after current spells of heavy rain.

- In Arid Western Plain Zone, in Jaisalmer and Bikaner districts, continue nursery sowing of vegetables like cauliflower, cabbage, chili and brinjal. In Barmer, Churu, Jalore, Jodhpur, Pali districts, undertake hoeing and weeding operation in mung, moth and guar crops on a non rainy day.
- In Irrigated North Western Plain Zone, undertake hoeing and weeding operation in groundnut crop before flowering stage on a non rainy day.
- In Dungarpur and Banswara districts of Southern Humid Plain Zone, prevailing weather condition is congenial for attack of stem fly/Semiloopers/girdle beetle in soybean and jassids in cotton for control of stem fly/Semiloopers /girdle beetle in soybean spray Triazophos 40 EC or Profenophos 50 EC @ 1.25 litres per hectare or Dimethoate 30 EC @ 1 litre per hectare and spray Emidachloprid 17.8 SL @ 200 ml per hectare for control of jassids in cotton after current spells of rain.
- In Irrigated North Western Plain Zone, prevailing weather condition is congenial for attack of thrips and white fly in Narma cotton, for control of thrips, spray Acephate 75 SP @ 2 gm. or Thiamethoxam 25 WG @ 0.5 ml. per liter of water and for white fly, spray mixture of Nimbesidin + Taral soap 5 ml @ 1 ml per litre of water or Triazophos 40 EC @ 2.5 ml per litre of water after current spells of rain.
- In Arid Western Plain Zone, in Barmer, Churu, Jalore, Jodhpur, Pali districts, prevailing weather condition is congenial for attack of sucking pests in chilli, for control spray Malathion 50 EC @ 1 ml. per litre of water on a non rainy day.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganaganagar, prevailing weather condition is congenial for attack of spotted bollworm in Desi cotton, for control spray Quinalphos 25 EC @ 2 ml or Fenveret 20 EC @ 1 ml per litre of water on a non rainy day.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganaganagar, prevailing weather condition is congenial for attack of sap sucking pest as whitefly, jassids in guar for control spray Triazophos @ 2.5 ml or Acitamiprid @ 0.4 gm. per litre of water on a non rainy day.
- In Irrigated North Western Plain Zone, Hanumangarh and Sriganaganagar, prevailing weather condition is congenial for attack of leaf miner in kinnow fruits, for control spray Acitamiprid 20 SP @ 0.4 ml. per liter of water on a non rainy day.
- In Bhilwara, Chittorgarh, Rajsamand, Sirohi and Udaipur districts of Sub Humid Southern Plain and Aravali Hill Zone, prevailing weather condition is congenial for attack of stem borer in maize and bollworm and jassids in cotton, for control of stem borer in maize. apply Phorate 10 G 3% granules @ 5 to 7.5 kg. per hectare at 15-30 days after sowing and for bollworm and jassids in cotton, apply Carbaryl 50% dust @ 2.5 kg. per hectare after current spells of rain.
- **Jammu & Kashmir:**
 - In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, farmers are advised to spray mixture of 3gm of zinc Sulphate, 15 kg Urea and 1 Kg of Zineb per hectare in 500 litre of water if yellowing of paddy leaves from tips is noticed. Apply second dose of Nitrogen as top dressing to paddy just before panicle initiation stage i.e about 55 – 65 days after transplanting. To maize crop apply top dress of nitrogen (Urea) during clear day at optimum moisture conditions before tassel formation i.e about 30-40 days after sowing.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, apply first dose of Urea to paddy at mid tillering stage and second top dressing of Urea to maize after two months of sowing i.e before tassel stage. Do weeding at regular intervals in the field of maize crop at least up to 40 days after sowing to avoid yield loss due to excessive weed growth.
 - In Cold Arid Zone of Leh, cover the greenhouse with shade nets (50%) for proper flowering and fruit setting in capsicum. Undertake harvesting of tomato, capsicum and brinjal at weekly and cucurbits in the greenhouses/trenches/low tunnels at 3-4 days intervals.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, weather is congenial for attack of blast on paddy crop. To control, spray Trycylazole (beam) @ 0.06% on a non rainy day. Also weather is congenial for attack of early blight on tomato and potato. Apply spray of Ridomil MZ and Mancozeb @ 2.0 – 2.5gm/litre is alternatively with interval of 10 days on a non rainy day.
- **Uttarakhand:**
 - In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, make drainage channel in maize, sugarcane and vegetable fields. Avoid stagnation of water in pulse crops. Propping in sugarcane field should be done to avoid damage due to high wind velocities. Complete sowing of urad, moong and sesamum at the earliest.
 - In Udhampur district of Bhabar and Tarai Zone, continue transplanting of seedlings of brinjal and chilli in the main field. Mid variety of cabbage can be sown in this month and weeding and hoeing should be done in the early variety of Cabbage. Proper drainage should be arranged in the vegetable fields.
 - In Nainital district of Bhabar and Tarai Zone, continue sowing of French bean and early varieties of pea in mid hills, urad and moong in the regions which are free from water logging. Drain out excess water from the vegetable fields. In unirrigated mid hills, radish varieties like Meenu early, Japanese white, Pusa Himani and early varieties of Saljam like Parpiltop, white glow should be sown at the earliest.
 - In Tehri Garhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, drain out excess water from vegetable crops. Maintain water level in paddy crop field by making broad and elevated bunds.

Apply one packet of Blue Green Algae (BGA) per acre to increase the nitrogen in the paddy field. Complete sowing of radish, spinach & coriander as early as possible. Undertake sowing of fodder sorghum specially Pusa chari⁹, Pusachari 6 varieties. Undertake sowing of carrot in raised beds.

- In Nainital district of Bhabar and Tarai Zone, if blight disease in tomato is not controlled by the use of Copper-oxichloride then spray the mixture of 8% Mancozeb and 64% Cymoxanil @ 2g/litre after current spells of rain. Avoid spraying of this chemical on regular basis.
- In Udham Singh Nagar district of Bhabar and Tarai Zone, in some areas, infestation of bacterial leaf blight is found in the paddy crop, to control spray 500g Copper oxichloride and 15g Steptocyclin in 500 litre of water. Attack of Hispa is also observed in paddy in many places, to control spray 40 EC Triazophos @ 750ml/ hectare or 36 SL Monocrotofos @ 1400ml/hectare. Undertake plant protection measures after current spells of rain.
- In Tehri Garhwal, Chamoli, Champawat, Pithoragarh, Rudraprayag and Uttarkashi districts of Hill Zone, farmers are advised for constant monitoring of finger millet crops against blast disease, if the population is above ETL then spray Tilt 2.0 ml/litre of water after current spells of rain.
- In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, there is possibility of stem borer in maize and paddy crop. Apply carbofuran 3% granules @ 20 kg/ha to maize and quinalphos 25 EC 20 ml in 10 litres of water to paddy crop to prevent the infestation of stem borer after current spells of rain. Apply top dressing of Nitrogen with Zinc Sulphate @ 25kg/ha for the prevention of Khaira disease in paddy crop.

■ **Himachal Pradesh:**

- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, complete transplanting of paddy. In mid hill areas, continue nursery sowing of Chinese cabbage and direct sowing of radish, carrot, broccoli, lettuce. Undertake nursery sowing of mid season cauliflower and cabbage in poly house in mid hill and lower region and transplanting of ageti cauliflower and cabbage nursery in fields.
- In Mid Hills Sub-Humid Zone of Himachal Pradesh, in Bilaspur, Solan, Shimla and Sirmaur districts, undertake nursery sowing of cauliflower and transplanting of cabbage nursery.
- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul & Spiti, continue sowing of oat. Continue nursery sowing of vegetables.
- In Kullu and Mandi districts of Mild Hills Sub-Humid Zone, weather is conducive for attack of bacterial blight in apple, for control spray Copper-Oxychloride @ 500 g + Streptocycline @ 6 g in 200 litres of water after current spells of rain.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, weather is conducive for attack of blast and brown spot in paddy crop, for control spray Carbendazim @ 2.0 g per litre of water after current spells of rain.
- In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, present weather is conducive for attack of rice hispa and leaf folder in paddy crop, for control rice hispa clear the grasses from bunds or spray Cypermethrin 10 EC @ 1ml per litre of water or Chlorpyriphos 20 EC @ 2.5ml per litre of water and spray Chlorpyriphos 20 EC @ 2.5 ml per litre of water for leaf folder after current spells of rain.
- In High Hills Temperate Dry Zone of Himachal Pradesh, in Kinnaur and Lahaul&Spiti, present weather is conducive for attack of downy mildew in cauliflower, tomato and cabbage, for control spray Rhedomil M-Z @ 25 gm per litre of water after current spells of rain, repeat at 15 days interval after current spells of rain.

■ **Punjab, Haryana and Delhi:**

- In Punjab, in Fazilka, Ferozepur and Faridkot districts, complete the transplanting of short duration varieties of rice and sowing of cotton. Continue sowing of okra, maize and planting of sugarcane. Continue transplanting of chilli and cucurbits on the ridges. Complete the sowing of moong. Keep the rice field free from weeds.
- In Western Zone of Punjab, continue transplanting of chilli, tomato, bell pepper. Continue sowing of cucurbits, round gourd, sponge gourd, okra, and cluster bean. Complete sowing of cotton, transplanting of paddy and undertake sowing of fodder crops.
- In Central Plain Zone of Punjab, complete the transplanting of basmati varieties and undertake sowing of fodder crops. Undertake planting of fruit crops like citrus, mango, litchi, guava etc.
- In Gurdaspur district of Punjab, complete transplanting of rice and continue sowing of maize. Drain out excess water from field of maize, sugarcane, pulses and vegetables. Undertake planting of ever green fruit crops like citrus, mango, litchi, guava, etc.
- In Ajitgarh, Rupnagar and SBS Nagar, drain out excess water from field of maize and 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 transplanting of rice, sowing of arhar, green gram and black gram. Complete the sowing of guar/bajra and sowing of leafy vegetables, bottle gourd, cucumber, ridge gourd summer radish. Undertake intercultural/hoeing operations in cotton crops for conserving the moisture and removing the weeds on a non rainy day. Undertake planting the fruits crops.
- In Eastern Zone of Haryana, continue transplanting of rice and continue sowing of fodder crops such as guar, maize and bajra.
- In Western Semi-Arid Zone of Delhi, complete the sowing of maize. Continue sowing of sweet corn, baby corn and fodder crops such as sorghum, bajra and cluster bean. Undertake transplanting of early cauliflower, tomato, chilli and brinjal on raised bed and sowing of radish, spinach, carrot and coriander. Undertake transplanting of onion seedling in the prepared fields.

- In Central Plain Zone and Western Zone of Punjab, sheath blight may be noticed in rice. Check by spraying Amistar Top 325 SC @ 200 ml or 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 on a non rainy day.
- In Undulating Plain Zone of Punjab, as weather is congenial for the infection sheath blight in rice, keep the water channels & ridges free from weeds to prevent initial infection, spray Tilt@0.1% on a non rainy day and repeat after 15 days if required.
- In Western Zone of Haryana, due to high moisture level in the environment, monitor the insect/pest and disease in the crop. For control of leafhopper infestation, spray 600 gram Carbaryl or 600 ml Quinalphas 25 E.C. or 800 ml Linden (Kenoden) 20 E.C. with 150-175 liter water per acre, on a non-rainy day.
- In Western Semi-Arid Zone of Delhi, monitor the cucurbitaceous crops against attack of fruit fly, use 'Methyl Eugenol trap, if symptoms seen, spray Rogor @ 2 ml + 10 g sugar or jaggary/litre water at 50 litres/ha on a non rainy day.
- **Uttar Pradesh:**
 - In Central Plain Zone of East Uttar Pradesh, continue sowing of urad, mung and transplanting of early maturing varieties of brinjal, chilli, cauliflower after current spells of heavy rain. Undertake weeding operation in standing crops of sorghum, maize, arhar, urad, mung, moth, soybean, sesame after current spells of rain.
 - In Eastern Plain Zone of East Uttar Pradesh, undertake transplanting of cauliflower, brinjal, tomato after current spells of heavy rain.
 - In North Eastern Plain Zone of East Uttar Pradesh, continue sowing of kharif maize after current spells of heavy rain..
 - In Western Plain Zone of West Uttar Pradesh, continue transplanting of paddy. Continue transplanting of tomato, chilli and sowing of bhindi, cucurbits. Continue sowing of sweet corn and baby corn.
 - In Bundelkhand Zone of West Uttar Pradesh, continue nursery sowing of early maturing varieties of tomato, cabbage, brinjal, chilli, cauli flower and transplanting of mid season brinjal, chilli, tomato, cabbage, cauliflower.
 - In Bundelkhand Zone of West Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of yellow mosaic in urad, mung and groundnut, for control spray Monocrotophos @ 1.5 litres in one hectare after current spells of rain.
 - In Bundelkhand Zone, Central and Eastern Plain Zone of East Uttar Pradesh, due to prevailing weather condition, there may be chances of attack of khaira in paddy, for control, spray Zinc Sulphate @ 5 kg or Urea @ 20 kg in 800 to 1000 litres of water per hectare after current spells of rain.
 - In Central Plain Zone of East Uttar Pradesh due to moisture or humid weather condition, there may be chances of attack of stem borer in maize, for control, spray Dimethoate 30 EC @ 1 litre or Quinalphos 25 EC @ 1.5 litres in 700 to 800 litres of water per hectare after current spells of rain.
 - In Central Plain Zone of East Uttar Pradesh due to prevailing weather condition, there may be chances of attack of fruit borer/leaf sheath in vegetables, for control, spray Neem oil @ 1.5 ml to 2 ml per litre of water, 3 to 4 times at 8 to 10 days of intervals after current spells of rain.
 - In North Eastern Plain Zone of East Uttar Pradesh due to prevailing weather condition, there may be chances of attack of aphid in jawar, for control, spray Monocrotophos @ 500 ml in 200 litres of water per acre after current spells of rain.
 - Suitable varieties for sowing are given in Annexure III.
- ❖ **Horticulture:**
 - In Central and Eastern Plain Zone of East Uttar Pradesh and Bundelkhand Zone of West Uttar Pradesh continue planting of new orchard of mango, guava, ber, lichi, aonla, lemon, ber, papaya.
 - In Alwar, Bharatpur, Dhaulpur, Karauli, Sawaimadhopur districts of Flood Prone Eastern Plain Zone, undertake preparation of pits by applying manure and fertilizers for planting of guava, pomegranate, lime, aonla, ber, papaya.
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, undertake plantation of mango, litchi, guava, citrus, laquat and amla.
 - In Una, Hamirpur, Kangra and Chamba districts of Himachal Pradesh, weather is conducive for citrus canker on citrus plants, for control spray Malathion @ 10 ml or Metasystox @ 10 ml per 10 litres of water after current spells of rain.
 - In Tarai Zone of Uttarakhand, in the Polyhouse, continue grafting in mango, guava and litchi. Undertake picking of early varieties of apple in mid hilly regions. Spray NAA @ 1g/100 litre or Planofix @ 25ml/100 litre of water to avoid rotting in high hilly regions.
- ❖ **Animal Husbandry**
 - In Tarai Zone of Uttarakhand, to save the animal from Gal-Ghotu disease, tie them in neat and clean places. When symptoms of Gal-Ghotu disease appeared in the animals, then inject Suphonamides like Sulphamethazine or Sulphadimidne 150Mg/Kg in the veins of animal for three days with the advice of Veterinarian.
 - In Dehradun, Pauri and Haridwar districts of Sub Humid Sub Tropic Zone, there is possibility of foot and mouth diseases and lagria in cow and buffaloes. Give vaccination to the animals to protect the animals from these diseases.
 - In Sub-Montane and Low Hills Sub-Tropical Zone, in Una, Hamirpur, Kangra and Chamba districts, there may be attack of ticks and mites on animals, for control spray Botox @ 2.0 ml per litre of water.
- ❖ **Apiculture:**

- In Himachal Pradesh, to control mites attack on honeybees, dust Sulphur on sealed brood in the colony and not on larvae. Also insert empty frame /combs for egg laying to the queen as the population starts builds up.
 - In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, kill wasps with a wooden flap and dusting or spraying with insecticides. Protect bees from rain by reducing the entrance and placing them in proper place. Examine colonies at intervals for wax moth management.
 - In Rajouri, Ramban, Poonch and Udhampur districts of Intermediate Zone, for the protection of honey bee colonies from ants, farmers are advised to put the legs of apiary into water so that ants could not attack apiary. Farmers are advised to not open the honey bee colonies during rainy day/cloudy weather conditions. Check the insect pest attack particularly mite and brood infestation.
- ❖ **Floriculture**
- In Jammu, Kathua, Samba and Reasi districts of Sub Tropical Zone, transplant rooted cuttings of Chayrysanthemum and raise seedlings of Marigold in raised beds.
 - 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 Dicolof @ 20 ml in 10 litres of water. To control thrips in tagetes spray Rogor @ 20 ml in 10 litres of water on a non rainy day.

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

Annexure I

Week by week Rainfall Distribution

Sub-Divisions	03.08.16		10.08.16		17.08.16	
	Actual (mm)	% dep.	Actual (mm)	% dep.	Actual (mm)	% dep.
Arunachal Pradesh						
Anjaw	**	**	**	**	**	**
Changlang	35.4	-39	40.5	-21	44.0	-60
Dibang Valley	**	**	**	**	**	**
East Kameng	26.7	-59	40.6	-15	17.2	-75
East Siang	5.3	-97	24.1	-84	16.6	-90
Kurung Kumey	**	**	**	**	**	**
Lohit	16.6	-85	50.3	-41	72.4	-38
Lower Dibang Valley	58.8	28	119.1	457	26.5	-46
Lower Subansari	**	**	**	**	**	**
Papumpare	19.0	-82	123.1	2	27.1	-75
Tawang	88.0	-33	106.0	-25	51.0	-65
Tirap	15.6	-89	83.4	-5	114.4	-3
Upper Siang	49.0	-61	21.2	-56	59.5	-56
Upper Subansari	26.0	-13	10.0	-66	30.0	-47
West Kameng	14.4	-89	30.4	-79	22.0	-85
West Siang	16.3	-78	20.4	-60	1.4	-98
Assam&Meghalaya						
Assam						
Baksa	19.8	-83	67.4	-10	8.5	-95
Barpeta	8.1	-93	53.6	-28	11.5	-93
Bongaigaon	27.0	-73	35.8	-53	15.0	-89
Cachar	66.3	-36	115.6	-11	31.7	-71
Chirang	39.8	-59	103.4	36	2.0	-99
Darrang	**	**	**	**	**	**
Dhemaji	**	**	**	**	**	**
Dhubri	95.4	-3	20.1	-77	3.8	-96

Dibrugarh	32.2	-65	67.9	-33	74.5	-19
Goalpara	28.4	-68	57.2	25	43.0	-56
Golaghat	68.0	38	107.4	71	18.5	-70
Hailakandi	57.8	-44	42.7	-55	89.5	-8
Jorhat	66.0	-23	70.1	-19	6.1	-92
Kamrup(Rural)	35.7	-42	46.6	-3	2.4	-97
Kamrup(Metro)	8.2	-87	53.5	11	5.0	-93
Karbi Anglong	8.9	-84	26.3	-51	56.9	19
Karimganj	77.3	-29	189.6	86	56.8	-45
Kokrajhar	62.6	-58	11.1	-91	12.8	-93
Lakhimpur	95.1	-10	65.3	-43	55.6	-53
Morigaon	0.0	-100	22.6	-69	12.4	-83
N.C.Hills	3.1	-91	3.2	-93	35.4	-20
Nagaon	8.5	-87	42.3	-30	26.6	-56
Nalbari	22.4	-70	101.8	36	9.6	-87
Sonitpur	18.4	-74	76.7	14	58.3	-32
Sibsagar	13.4	-83	125.5	52	42.2	-44
Tinsukia	14.8	-83	91.1	6	83.5	-15
Udalgiri	62.2	-9	19.9	-68	22.2	-66
Meghalaya						
East Garo Hills	81.8	-22	0.0	-100	21.6	-73
East Khasi Hills	45.9	-82	107.9	-48	142.2	-41
Jaintia Hills	4.0	-99	6.0	-96	8.0	-97
Ribhoi	33.8	-68	25.0	-70	16.3	-84
South Garo Hills	6.0	-94	24.0	-75	3.0	-96
West Garo Hills	114.0	23	6.0	-94	10.6	-86
West Khasi Hills	13.0	-91	2.0	-99	6.0	-96
NMMT						
Mizoram						
Aizwal	39.2	-64	66.0	-35	133.3	17
Champhai	**	**	**	**	**	**
Kolasib	**	**	**	**	**	**
Lawngtlai	**	**	**	**	**	**
Lunglei	**	**	**	**	**	**
Mamit	**	**	**	**	**	**
Saiha	118.0	17	84.0	0	90.0	2
Serchhip	0.3	-99	40.3	-49	104.6	-16
Manipur						
Bishnupur	**	**	**	**	**	**
Chandel	**	**	**	**	**	**
Churachandpur	**	**	**	**	**	**
Imphal east	34.9	-33	20.8	-68	7.6	-89
Imphal west	0.0	-100	123.9	150	36.9	-54
Senapati	**	**	**	**	**	**
Tamenglong	**	**	**	**	**	**
Thoubal	**	**	**	**	**	**
Ukhrul	**	**	**	**	**	**
Nagaland						
Dimapur	10.5	-77	105.4	14	131.0	150

Kephire	**	**	**	**	**	**
Kohima	23.6	-72	36.5	-57	32.3	-68
Longleng	**	**	**	**	**	**
Mokokchung	**	**	**	**	**	**
Mon	**	**	**	**	**	**
Paren	**	**	**	**	**	**
Phek	6.0	-93	50.0	-41	35.0	-65
Tuensang	**	**	**	**	**	**
Wokha	**	**	**	**	**	**
Zunheboto	**	**	**	**	**	**
Tripura						
Dhalai	67.4	-33	30.1	-57	195.0	120
NorthTripura	30.5	-61	14.0	-83	207.2	115
SouthTripura	80.4	-23	21.2	-73	85.0	-10
West Tripura	78.4	-3	19.2	-71	65.7	-21
Himachal Pradesh						
Bilaspur	55.1	-28	138.3	54	96.0	36
Chamba	90.2	-34	130.1	-8	62.1	-47
Hamirpur	96.2	-3	159.7	78	173.5	76
Kangra	179.9	7	229.6	37	160.0	4
Kinnaur	8.4	-51	16.0	-13	14.5	-32
Kullu	65.6	39	66.5	63	45.1	11
Lahaul and Spiti	4.7	-88	10.8	-67	13.4	-57
Mandi	106.7	-6	131.8	35	93.7	8
Shimla	85.7	58	69.6	54	62.8	38
Sirmaur	181.0	52	45.6	-60	75.2	-39
Solan	97.9	15	100.8	19	65.4	-24
Una	38.8	-50	90.3	10	110.5	42
Punjab						
Amritsar	9.6	-84	20.6	-59	60.1	15
Barnala	0.0	-100	47.0	55	9.0	-66
Bhatinda	4.5	-83	27.5	-31	0.0	-100
Faridkot	0.0	-100	53.2	127	11.0	-56
Fatehgarh Saheb	15.7	-72	45.3	-1	20.8	-50
Ferozpur	0.0	-100	0.7	-98	8.0	-69
Gurdaspur	88.5	3	167.3	84	53.4	-37
Hoshiarpur	14.9	-81	87.7	20	82.0	38
Jalandhar	5.1	-90	9.4	-82	11.2	-75
Kapurthala	4.5	-88	0.0	-100	59.0	68
Ludhiana	9.4	-81	2.7	-94	11.5	-73
Mansa	0.0	-100	17.0	-53	9.0	-69
Moga	0.0	-100	2.8	-92	0.0	-100
Muktesar	11.4	-50	0.0	-100	55.6	157
Nawashahar	11.3	-86	39.9	-40	50.0	-5
Patiala	15.2	-74	47.5	-14	11.7	-74
Ropar	53.5	-36	47.8	-34	64.0	6
Sangrur	18.2	-53	41.6	7	9.6	-75
Mohali	33.0	-52	74.0	24	35.0	-19
TarnTaran	36.0	-6	0.0	-100	28.0	7

Haryana,Chd,Delhi						
Haryana						
Ambala	15.1	-79	66.9	-22	45.1	-44
Bhiwani	33.5	11	4.7	-85	42.3	30
Chandigarh	33.5	-53	39.3	-54	43.0	-39
Faridabad	187.5	281	18.3	-68	71.7	38
Fatehabad	20.3	-20	0.0	-100	9.3	-52
Gurgaon	51.5	37	4.3	-91	70.5	49
Hissar	28.2	14	3.6	-88	5.2	-81
Jhajar	41.3	15	6.1	-84	131.0	263
Jind	25.0	-16	4.2	-88	30.3	-3
Katihah	16.8	-44	39.8	13	14.3	-58
Karnal	71.0	65	30.4	-30	69.3	14
Kurukshetra	14.8	-69	24.5	-39	24.3	-56
Mahendragarh	29.5	-5	12.3	-66	62.5	51
Mewat	32.4	-11	2.8	-95	59.4	20
Palwal	45.7	31	9.8	-78	88.1	98
Panchkkula	42.9	-51	72.8	-11	23.6	-73
Panipat	30.9	-27	3.4	-92	81.6	62
Rewari	42.4	8	5.9	-88	108.5	130
Rohtak	13.7	-67	8.4	-82	68.6	44
Sirsa	0.0	-100	9.5	-27	2.8	-87
Sonepat	44.0	-16	1.0	-98	36.1	-35
Yamunanagar	65.0	-19	32.8	-57	74.0	5
Delhi						
Central Delhi	99.0	77	21.0	-70	114.0	108
East Delhi	0.0	-100	12.0	-83	0.0	-100
New Delhi	69.1	23	1.8	-97	56.0	2
North Delhi	106.3	90	3.7	-95	34.6	-37
North East Delhi	100.0	79	11.0	-84	10.0	-82
North West Delhi	30.0	-46	0.5	-99	8.5	-85
South Delhi	148.8	166	17.5	-75	13.3	-76
South West Delhi	174.9	212	25.6	-63	81.8	49
West Delhi	96.0	71	2.0	-97	1.0	-98
Jammu & Kashmir						
Anantnag	32.0	66	37.3	55	11.1	-19
Badgam	28.6	82	2.0	-86	0.2	-98
Bandipore	**	**	**	**	**	**
Baramula	27.6	31	24.6	-8	20.3	22
Doda	62.6	82	35.8	30	28.6	47
Ganderbal	14.5	-6	13.2	-29	6.0	-55
Jammu	206.7	121	179.0	86	65.9	-19
Kargil	**	**	**	**	**	**
Kathua	47.1	-58	180.5	61	81.4	-20
Kistwar	**	**	**	**	**	**
Kulgam	36.6	90	18.6	-23	1.4	-90
Kupwara	20.8	39	0.6	-97	2.7	-77
Ladakh(Leh)	0.0	-100	1.8	-36	0.9	-77
Poonch	**	**	**	**	**	**

Pulwama	43.2	135	28.6	31	6.0	-55
Rajouri	54.2	-29	66.6	25	3.2	-96
Ramban	48.0	40	54.3	97	11.2	-42
Reasi	139.0	-16	320.2	133	100.4	-8
Samba	136.9	46	62.4	-35	15.9	-80
Shopian	**	**	**	**	**	**
Srinagar	43.3	181	6.8	-63	17.8	33
Udhampur	143.8	-13	249.5	82	50.6	-54
East Madhya Pradesh						
Anuppur	80.9	-3	94.3	-9	104.8	16
Balaghat	71.6	-35	158.8	47	17.9	-85
Chhatarpur	72.3	-13	86.8	-21	180.8	118
Chindwara	92.0	32	27.8	-58	6.4	-90
Damoh	50.3	-55	125.0	12	36.3	-54
Dindori	123.3	37	226.5	92	33.7	-63
Jabalpur	62.4	-38	200.4	85	81.4	-20
Katni	46.6	-56	137.5	31	142.4	65
Mandla	79.4	-18	152.9	33	62.2	-47
Narsingpur	68.0	-29	79.0	-16	37.3	-61
Panna	22.9	-75	77.1	-30	355.1	313
Rewa	28.2	-66	37.7	-58	231.5	220
Sagar	51.5	-49	127.6	12	28.0	-69
Satna	46.6	-47	72.1	-22	296.8	255
Seoni	70.9	-13	83.2	1	26.9	-67
Shahdol	44.2	-38	139.0	37	151.0	98
Sidhi	70.8	-12	35.8	-55	251.6	259
Singrauli	122.0	78	71.6	10	203.8	267
Tikamgarh	51.5	-26	52.5	-40	6.0	-92
Umaria	96.8	3	128.5	31	216.0	124
West Madhya Pradesh						
Agar	194.2	44	146.2	11	26.1	-73
Alirajpur	133.7	111	127.3	101	32.2	-33
Asoknagar	70.0	12	135.3	64	13.3	-82
Badwani	50.9	16	23.2	-56	9.3	-75
Betul	118.7	66	57.1	-31	27.2	-60
Bhind	78.4	61	36.9	-47	45.1	-38
Bhopal	106.7	30	144.5	54	43.3	-46
Burhanpur	96.7	60	43.7	-36	19.1	-63
Datia	96.9	64	62.3	-25	27.0	-63
Dewas	89.7	9	119.7	43	20.2	-71
Dhar	71.2	5	74.7	7	18.5	-62
Guna	26.2	-66	178.4	97	98.7	38
Gwalior	104.8	78	54.5	-35	12.2	-82
Harda	121.4	44	161.9	64	22.4	-76
Hosangabad	217.8	91	204.1	72	113.1	4
Indore	55.0	-13	95.9	29	13.1	-76
Jhabua	154.1	167	139.4	103	21.3	-51
Khandwa	75.9	13	114.7	40	8.7	-85

Khargone	35.6	-41	56.6	-13	13.9	-69
Mandsaur	163.9	117	157.1	104	18.4	-67
Morena	68.8	17	17.6	-77	45.7	-34
Neemuch	156.2	134	261.2	301	25.1	-59
Raisen	84.9	-7	158.1	47	64.0	-29
Rajgarh	69.5	-8	229.9	143	73.3	8
Ratlam	112.8	31	295.1	303	43.9	-23
Sehore	144.2	47	146.4	50	32.0	-60
Shajapur	49.7	-44	101.0	13	37.0	-43
Sheopur Kalani	109.5	133	82.3	18	121.6	64
Shivpuri	101.0	51	81.0	3	20.1	-66
Ujjain	167.1	140	149.8	99	32.0	-38
Vidisha	109.5	25	228.4	146	75.6	-9
Chhattisgarh						
Bastar	54.5	-36	173.3	103	27.6	-68
Bijapur	44.9	-63	120.0	-12	19.5	-83
Bilaspur	44.1	-48	96.6	8	46.0	-52
Dantewara	56.6	-43	101.0	-12	84.2	-3
Dhamtari	44.4	-53	109.6	55	14.1	-83
Durg	11.8	-85	217.6	165	3.6	-96
Janjgir	46.0	-52	206.9	97	104.7	-7
Jashpurnagar	9.8	-90	104.1	2	54.6	-45
Kanker	240.3	124	225.9	138	82.5	-13
Korba	92.4	-11	130.0	19	85.1	-27
Koriya	72.9	-12	68.4	-34	256.8	162
Kawardha	**	**	**	**	**	**
Mahasumund	51.1	-46	91.7	18	30.9	-65
Narayanpur	92.0	-6	248.3	118	42.3	-57
Raigarh	108.3	18	178.4	100	73.7	-16
Raipur	32.5	-60	122.5	51	10.6	-88
Rajnandgaon	60.5	-23	116.3	37	19.2	-74
Surguja	158.6	60	100.6	-2	289.3	219
East Uttar Pradesh						
Allahabad	87.5	27	23.0	-69	205.2	251
Ambedkar Nagar	48.0	-40	1.0	-99	169.0	174
Azamgarh	70.4	7	18.0	-75	153.1	123
Bahraich	75.3	-8	7.9	-85	48.6	-29
Ballia	35.4	-49	20.7	-63	69.2	14
Balrampur	42.4	-49	13.2	-80	29.6	-59
Banda	86.0	19	52.0	-36	197.8	130
Barabanki	62.9	-16	9.0	-85	86.6	20
Basti	16.1	-79	8.7	-84	14.3	-78
Chandauli	63.0	5	112.0	55	129.0	93
Deoria	17.1	-76	3.5	-93	14.0	-83
Faizabad	151.0	76	11.1	-82	55.6	-29
Farrukhabad	43.6	-20	2.1	-97	58.3	-27
Fatehpur	89.8	37	28.8	-63	77.2	9
Gazipur	82.3	16	13.8	-83	61.9	-12
Gonda	129.1	53	4.5	-94	30.4	-56

Gorakhpur	65.1	-34	14.5	-83	40.5	-59
Hardoi	96.6	55	11.8	-80	58.1	-9
Jaunpur	40.8	-31	14.5	-78	152.3	172
Kannauj	15.5	-75	0.0	-100	82.1	3
Kanpur City	85.2	47	7.1	-90	43.4	-25
Kanpur Dehat	50.8	-12	0.5	-99	51.5	-15
Kaushambi	28.8	-55	15.4	-78	72.9	11
Kheri	150.4	116	10.4	-83	88.9	29
Kushi nagar	17.0	-81	5.5	-91	17.1	-83
Lucknow	77.6	17	12.6	-78	124.9	94
Maharajganj	82.5	-16	10.8	-84	42.1	-61
Mau	60.5	-20	5.6	-91	29.5	-64
Mirzapur	105.1	49	53.0	-37	213.7	229
Pratapgarh	93.3	33	19.3	-72	170.3	167
RaiBareilly	49.3	-29	16.7	-72	165.0	189
Sahuji Maharajnagar	94.0	44	9.5	-86	311.0	327
Sant Kabirnagar	22.0	-76	38.0	-34	37.0	-53
Sant Ravidas Nagar	84.0	40	45.0	-38	226.0	239
Shrawasti	60.1	-27	17.5	-68	39.6	-42
Sidharthnagar	40.1	-52	15.1	-76	16.4	-79
Sitapur	99.8	73	25.0	-57	98.2	45
Sonbhadra	68.6	15	25.1	-69	228.6	230
Sultanpur	127.3	93	15.8	-75	150.2	157
Unnao	68.6	10	5.2	-93	71.8	1
Varanasi	107.0	72	121.0	72	102.3	75
West Uttar Pradesh						
Agra	119.4	124	19.8	-73	19.7	-73
Aligarh	95.7	51	15.2	-75	84.1	35
Auraiya	27.8	-50	4.0	-94	58.8	2
Badaun	110.0	46	24.6	-65	71.0	5
Baghpat	37.9	-24	5.5	-90	54.4	-3
Bareilly	181.8	147	44.8	-39	165.5	159
Bijnor	111.6	28	66.8	-12	43.5	-46
Bulandsahar	67.8	4	16.1	-69	57.5	-15
Etah	86.2	79	5.7	-91	132.0	116
Etawah	56.7	-6	10.7	-88	67.3	10
Firozabad	44.6	-4	18.0	-70	49.8	-24
GBNagar	21.0	-55	0.0	-100	6.0	-90
Ghaziabad	29.3	-50	5.6	-91	32.3	-38
Hamirpur	123.0	105	47.0	-45	188.9	127
Jalaun	79.0	38	43.3	-55	121.9	56
Jhansi	70.1	6	37.5	-54	33.2	-59
Jotiba Phule Nagar	112.5	61	43.0	-25	136.0	70
Kanshiramnagar	30.0	-44	14.0	-77	157.0	135
Lalitpur	41.5	-40	73.2	-32	14.0	-82
Mahamaya Nagar	109.5	108	7.3	-88	19.0	-72
Mahoba	69.2	2	34.2	-59	226.7	169
Mainpuri	25.0	-46	7.1	-89	73.3	7

Mathura	44.5	1	0.0	-100	65.0	0
Meerut	72.7	4	11.9	-84	28.4	-60
Moradabad	61.8	-22	92.5	24	72.1	-8
Muzzaffarnagar	90.5	39	18.8	-71	49.1	-28
Pilibhit	90.7	9	14.5	-81	45.2	-39
Rampur	79.3	-6	34.5	-58	59.0	-18
Saharanpur	34.0	-54	82.0	9	52.3	-25
Shahjahanpur	79.9	20	28.1	-62	64.4	-7
Uttarakhand						
Almora	59.7	-16	84.0	27	83.6	31
Bageshwar	71.2	1	98.2	49	85.5	34
Chamoli	67.0	-15	146.7	82	133.6	43
Champawat	123.3	26	103.8	8	75.7	-9
Dehradun	111.1	-32	96.0	-44	118.6	-26
Garhwal Pauri	119.6	1	72.6	-39	78.0	-24
Garhwal Tehri	62.0	-41	104.5	9	51.6	-38
Haridwar	30.5	-69	62.8	-30	72.9	-21
Nainital	122.2	-5	69.6	-26	225.9	133
Pithorgarh	101.6	-28	127.7	-3	90.7	-26
Rudraprayag	146.3	-11	181.8	26	175.7	4
Udham Sing Nagar	54.2	-46	18.9	-74	59.9	-34
Uttarkashi	101.7	8	111.4	18	90.0	-17
Bihar						
Araria	95.2	1	22.6	-70	38.4	-53
Arwal	64.5	37	36.1	-32	95.6	43
Aurangabad	37.0	-35	33.7	-44	100.0	80
Banka	22.9	-64	30.3	-39	73.5	21
Begusarai	36.5	-58	11.5	-76	34.1	-25
Bhabua	25.5	-59	121.7	50	108.6	80
Bhagalpur	6.1	-91	18.7	-64	32.3	-48
Bhojpur	81.2	10	10.6	-81	29.4	-53
Buxar	63.8	12	25.8	-53	44.8	-37
Darbhanga	48.6	-36	18.9	-65	24.7	-66
East Champaran	70.2	-14	16.8	-67	18.2	-74
Gaya	13.1	-79	78.9	19	80.5	22
Gopalganj	31.1	-55	15.7	-68	19.6	-76
Jahanabad	91.8	62	34.5	-44	65.0	11
Jamui	32.1	-46	43.6	-29	78.6	38
Kathihar	10.5	-86	22.9	-55	33.7	-41
Khagadia	9.4	-87	12.9	-81	56.5	-24
Kishanganj	94.2	-12	6.7	-92	19.4	-84
Lakhisarai	50.8	-30	19.6	-66	34.5	-40
Madhepura	44.3	-43	32.9	-44	23.2	-67
Madhubani	96.9	28	5.9	-88	24.4	-71
Monghyar	11.4	-84	0.0	-100	47.2	-17
Muzaffarpur	26.5	-65	15.4	-72	45.3	-33
Nalanda	46.5	-28	15.5	-76	66.8	12
Nawada	21.7	-68	46.4	-36	89.1	49
Patna	41.0	-46	16.0	-70	49.6	-15

Purnea	64.9	-28	18.3	-71	43.1	-47
Rohtas	58.7	-8	55.5	-18	72.6	14
Saharsha	0.0	-100	15.9	-79	35.8	-67
Samstipur	47.9	-26	6.5	-90	43.2	-48
Saran	51.3	-32	39.1	-24	30.6	-60
Sheikpura	22.5	-65	45.8	-12	136.2	141
Sheohar	56.8	-34	7.6	-85	30.0	-62
Sitamarhi	44.5	-49	10.4	-80	20.0	-74
Siwan	139.6	97	13.7	-75	39.4	-47
Supaul	29.1	-60	16.1	-62	39.3	-37
Vaishali	40.5	-50	27.3	-52	33.5	-52
West Champaran	146.1	45	10.0	-82	36.1	-57
Jharkhand						
Bokaro	37.0	-51	66.3	-18	76.9	26
Chatra	26.8	-60	91.1	11	278.9	263
Deoghar	48.5	-25	44.5	-27	126.5	102
Dhanbad	51.1	-42	92.3	22	93.9	35
Dumka	47.1	-36	56.6	-20	125.8	70
East Singbhum	69.7	-15	323.1	288	183.2	175
Garhwa	27.0	-66	26.5	-67	118.3	65
Giridih	26.3	-66	88.0	28	148.6	168
Godda	50.2	-13	24.8	-45	48.5	-20
Gumla	63.4	-23	50.4	-42	50.2	-40
Hazaribagh	37.1	-49	54.0	-32	117.6	104
Jamtara	52.3	-34	86.3	14	143.2	64
Khunti	51.0	-44	76.2	-24	80.3	8
Koderrna	12.1	-79	53.3	-24	114.9	102
Latehar	31.5	-61	54.1	-38	248.5	343
Lohardagga	89.6	8	69.2	-22	106.2	87
Pakur	25.7	-66	21.2	-70	115.1	31
Palamau	55.7	-21	51.9	-33	193.5	179
Ramgarh	65.0	-14	98.0	28	94.4	60
Ranchi	58.3	-26	55.2	-44	44.7	-46
Sahebganj	21.4	-69	34.4	-38	26.6	-69
Saraikela	77.4	-9	102.0	20	94.5	42
Simdega	63.7	-32	85.2	-18	94.5	6
West Singbhum	45.4	-43	45.5	-50	174.2	121
East Rajasthan						
Ajmer	117.1	296	122.7	230	11.9	-72
Alwar	62.7	50	24.4	-56	120.4	113
Banswara	95.8	35	201.8	164	12.9	-80
Baran	94.8	58	201.4	140	139.4	98
Bharatpur	85.3	91	17.9	-67	49.4	-14
Bhilwara	154.0	256	235.1	370	34.0	-40
Bundi	152.8	184	176.8	216	33.2	-47
Chittorgarh	155.6	159	341.2	453	57.7	-10
Dausa	74.8	80	90.0	38	108.8	82
Dholpur	114.0	129	18.3	-74	34.2	-51
Dungarpur	101.3	95	165.8	220	9.4	-81

Jaipur	114.5	206	48.5	-3	32.3	-32
Jhalawar	125.8	80	177.8	101	56.2	-29
Jhunjhunu	45.0	42	13.5	-61	67.2	96
Karauli	73.7	73	47.8	-40	74.7	-7
Kota	91.6	63	238.0	235	45.4	-34
Pratapgarh	182.8	137	188.8	190	20.8	-68
Rajsamand	67.1	83	165.6	290	15.0	-67
Sawai Madhopur	113.8	136	95.3	24	142.0	109
Sikar	67.5	126	15.9	-53	59.8	71
Sirohi	151.4	76	230.7	190	35.1	-55
Tonk	140.1	246	133.3	150	52.1	-6
Udaipur	121.5	137	157.1	228	14.1	-71
West Rajasthan						
Barmer	8.0	-52	96.7	287	2.4	-88
Bikaner	21.9	39	52.2	209	16.5	-4
Churu	44.5	83	8.4	-67	27.0	22
Hanumangarh	1.4	-93	4.3	-82	1.3	-94
Jaisalmer	11.9	7	27.0	112	3.4	-83
Jalore	25.1	-26	195.3	433	11.0	-68
Jodhpur	67.2	247	148.4	551	23.6	-6
Nagaur	110.0	482	84.7	211	19.1	-31
Pali	179.1	427	268.5	556	60.0	69
Sri Ganganagar	29.3	102	23.7	46	5.3	-71
Gujarat Region						
Ahmedabad	35.3	-25	88.1	68	8.4	-83
Anand	64.5	2	123.2	94	4.2	-94
Banaskantha	36.6	-34	63.2	47	4.7	-89
Baroda	91.3	37	77.4	-1	15.6	-77
Broach	42.1	-32	54.4	-8	17.5	-64
DNH	629.7	226	480.6	167	61.2	-62
Dahod	110.1	45	101.0	28	14.6	-75
Daman	589.2	205	304.5	69	27.4	-83
Dangs	258.3	43	421.0	161	85.3	-31
Gandhinagar	67.0	10	155.6	141	20.8	-56
Kheda	42.6	-39	103.4	52	1.6	-97
Mehsana	50.0	-14	89.3	70	1.5	-97
Narmada	126.5	29	83.1	-12	44.3	-46
Navsari	245.1	75	223.4	70	21.6	-82
Panchmahal	106.5	38	122.0	35	9.3	-88
Patan	20.6	-59	86.0	140	2.6	-94
Sabarkantha	38.2	-48	128.4	107	8.5	-86
Surat	142.6	46	124.4	37	43.6	-45
Tapi	103.8	-23	160.0	21	35.8	-63
Valsad	563.8	223	426.1	209	48.6	-65
S K & Diu region						
Amreli	50.1	59	85.0	184	0.0	-99
Bhavnagar	83.3	147	59.0	85	0.9	-97
Diu	176.4	231	160.5	342	2.5	-93
Jamnagar	102.0	182	314.3	686	0.0	-100

Junagarh	119.7	151	139.2	181	0.8	-98
Kutch	10.2	-61	126.6	359	0.1	-99
Porbandar	65.9	142	165.2	274	1.0	-97
Rajkot	91.6	94	128.4	182	0.5	-98
Surendranagar	11.2	-67	35.6	-13	6.7	-79
Maharashtra						
Konkan & Goa						
Mumbai City	310.5	108	105.2	-2	40.6	-66
Mumbai Suburban	407.0	136	202.2	59	13.6	-89
North Goa	195.3	-23	174.1	-15	54.3	-70
Raigad	547.1	99	276.1	39	91.7	-59
Ratnagiri	483.0	73	305.1	42	74.3	-65
Sindhudurg	247.1	8	172.4	-6	68.0	-59
South Goa	151.1	-31	107.7	-40	47.9	-71
Thane	465.6	133	190.6	14	36.3	-79
Madhya Maharashtra						
Ahmednagar	64.6	199	15.5	-17	1.5	-91
Dhule	17.2	-54	46.2	25	8.6	-66
Jalgaon	52.2	6	41.9	-24	7.3	-83
Kolhapur	150.6	3	283.1	114	47.3	-61
Nandurbar	59.9	-12	100.5	52	34.6	-34
Nasik	236.5	203	151.7	126	27.2	-54
Pune	140.3	94	183.1	210	25.1	-56
Sangli	45.8	36	63.3	131	12.4	-50
Satara	161.1	168	162.8	265	23.6	-47
Solapur	38.8	48	3.3	-84	2.3	-89
Marathwada						
Aurangabad	63.1	51	20.5	-43	1.4	-95
Beed	34.9	2	6.0	-76	4.3	-86
Hingoli	79.5	17	9.8	-82	1.8	-97
Jalna	56.2	31	11.5	-67	0.3	-99
Latur	158.2	154	11.0	-74	4.6	-91
Nanded	103.2	53	14.8	-69	8.1	-86
Osmanabad	57.9	40	14.3	-51	10.8	-66
Parbhani	81.3	36	8.0	-79	3.8	-92
Vidarbha						
Akola	75.7	55	38.8	-37	14.5	-63
Amraoti	72.0	13	48.9	-30	11.6	-78
Bhandara	68.9	-23	78.1	-32	11.7	-86
Buldhana	78.7	58	24.0	-57	17.2	-56
Chandrapur	79.9	-14	50.0	-48	10.8	-87
Gadchiroli	74.3	-36	92.2	-14	30.1	-72
Gondia	85.0	-13	148.8	37	14.2	-85
Nagpur	72.0	2	40.5	-46	6.3	-89
Wardha	103.2	54	37.9	-48	16.4	-74
Washim	90.4	50	31.4	-56	2.4	-96
Yeotmal	82.4	29	39.0	-42	1.5	-98
Odisha						

Angul	92.6	28	153.7	77	87.7	7
Balasore	42.5	-49	93.3	13	85.6	8
Bargarh	60.6	-30	140.7	60	53.5	-40
Bhadrak	70.2	-4	82.4	-5	122.3	43
Bolangir	32.0	-64	158.4	98	25.3	-71
Boudh	30.9	-60	171.2	93	94.5	3
Cuttack	72.9	-13	133.1	58	72.9	-2
Deogarh	86.1	-22	57.0	-64	91.6	-25
Dhenkanal	76.8	-2	124.3	42	87.0	1
Gajapati	63.5	7	57.9	6	20.5	-69
Ganjam	41.0	-31	58.2	20	25.2	-54
Jagatsingpur	103.1	15	124.1	39	132.0	69
Jajpur	82.8	-7	111.8	36	122.1	56
Jharsuguda	85.4	-2	176.2	49	90.1	-15
Kalahandi	32.2	-66	162.1	116	41.6	-59
Kandhamal	42.8	-44	141.1	59	65.4	-29
Kendrapara	89.0	47	166.0	78	146.0	58
Keonjhar	96.6	43	66.8	-22	83.4	4
Khurda	67.4	-18	105.1	37	39.8	-48
Koraput	142.9	45	104.4	2	55.6	-44
Malkangiri	90.0	-17	125.4	23	54.0	-55
Mayurbhanj	80.2	10	98.5	2	60.8	-30
Nawapara	61.0	-17	95.6	57	19.0	-75
Nawarangpur	74.7	-22	108.6	14	31.3	-74
Nayagarh	56.6	-26	78.7	14	29.4	-65
Puri	106.4	29	167.0	127	51.6	-24
Rayagada	56.1	-23	110.2	100	24.4	-63
Sambalpur	101.6	-8	249.2	103	77.5	-36
Sonepur	74.3	-32	204.6	99	71.5	-38
Sundargarh	70.9	-18	84.1	-5	70.5	-27
West Bengal & Andaman Nicobar Islands						
A & N ISLAND						
Nicobar	16.5	-73	74.5	18	7.9	-85
North & Middle Andaman	186.2	75	58.8	-43	16.1	-84
South Andaman	166.5	77	16.2	-83	14.6	-87
GWB						
Bankura	78.7	13	112.2	80	69.0	-3
Birbhum	37.9	-47	47.4	-37	127.2	72
Burdwan	57.2	-21	64.4	-5	130.6	87
East Midnapore	106.0	27	199.0	165	50.5	-31
Hooghly	39.1	-46	44.3	-28	88.5	48
Howrah	18.6	-80	95.3	-4	60.2	-7
Kolkata	54.5	-43	158.6	92	113.3	67
Murshidabad	18.5	-69	18.1	-65	85.3	28
Nadia	62.4	18	40.6	-21	186.1	201
24 Pargana (N)	88.9	12	92.5	32	156.2	107
Purulia	70.1	-2	133.1	73	84.0	21
24 Pargana (S)	199.4	64	188.8	111	59.2	-35

West Midnapore	90.1	7	75.1	-1	141.8	95
SHWB & Sikkim						
Cooch Behar	158.7	5	34.5	-80	8.3	-96
Darjeeling	66.8	-61	32.3	-78	67.4	-56
East Sikkim	40.8	-68	57.0	-53	57.4	-32
Jalpaiguri	85.9	-44	22.8	-84	33.4	-79
Malda	23.3	-66	9.5	-83	49.9	-22
North Dinajpur	**	**	0.6	-99	3.3	-96
North Sikkim	136.5	21	82.1	3	35.6	-63
South Dinajpur	0.0	-100	8.5	-83	1.0	-98
South Sikkim	79.1	-38	35.5	-71	22.2	-74
West Sikkim	0.0	-100	**	**	**	**
Karnataka						
Coastal Karnataka						
Dakshina Kannada	105.0	-60	129.4	-33	143.9	-33
Udupi	99.5	-62	213.2	-4	126.4	-46
Uttara Kannada	76.9	-64	166.6	-6	53.4	-70
NI Karnataka						
Bagalkote	21.0	2	9.7	-41	5.8	-64
Belagavi	53.2	37	73.4	97	16.0	-49
Bidar	90.9	110	18.7	-54	10.5	-77
Dharwad	29.9	-3	32.7	20	21.4	-19
Gadag	27.7	44	8.8	-50	7.6	-52
Haveri	23.8	-30	24.3	-21	6.7	-76
Kalaburgi	72.2	55	9.2	-70	10.9	-74
Koppal	24.5	19	0.0	-99	3.8	-79
Raichur	51.2	65	2.2	-92	1.8	-94
Vijayapura	52.4	98	8.5	-49	7.1	-65
Yadgir	62.5	54	1.3	-96	7.8	-81
SI Karnataka						
Ballari	33.2	57	1.3	-93	5.9	-69
Bangalore Rural	51.4	93	13.2	-39	9.1	-67
Bangalore Urban	85.4	225	2.0	-93	9.8	-69
Chamarajanagar	21.1	66	1.0	-94	1.5	-89
Chikaballapur	68.5	197	8.7	-60	2.5	-89
Chikkamagaluru	76.6	-44	111.1	-6	46.0	-59
Chitradurga	17.0	23	2.4	-84	0.4	-97
Davangere	34.7	41	8.3	-61	4.0	-81
Hassan	45.0	9	23.1	-31	5.5	-82
Kodagu	79.9	-52	115.8	-21	103.4	-25
Kolar	64.4	239	0.0	-100	11.0	-47
Mandya	65.3	478	1.4	-87	0.9	-92
Mysuru	34.2	103	2.0	-87	11.7	-20
Ramanagara	96.1	353	0.0	-100	7.2	-69
Shivamogga	79.8	-39	174.0	62	104.8	-1
Tumakuru	61.7	246	0.4	-98	3.7	-79
Kerala						
Alappuzha	38.1	-60	57.0	-30	26.1	-63
Kannur	52.3	-72	127.8	-6	103.2	-20

Ernakulam	62.9	-45	62.3	-42	34.7	-63
Idukki	84.4	-48	72.6	-44	74.8	-43
Kasaragod	116.7	-44	86.5	-44	76.0	-50
Kollam	23.9	-68	25.5	-54	34.1	-34
Kottayam	33.6	-69	63.0	-30	26.8	-69
Kozhikode	24.1	-86	122.3	-7	52.5	-54
Malappuram	22.3	-84	78.5	-19	39.3	-58
Palakkad	35.0	-67	50.8	-38	40.3	-53
Pathanamthitta	46.5	-53	48.9	-43	35.2	-54
Thiruvananthapuram	4.0	-91	13.8	-56	9.8	-67
Thrissur	23.6	-82	68.1	-37	18.9	-82
Wyand	55.3	-73	83.0	-49	52.5	-60
Tamil Nadu						
Ariyalur	46.6	195	0.0	-100	7.0	-73
Chennai	14.4	-47	14.0	-54	0.9	-97
Coimbatore	16.1	109	11.5	34	7.6	-16
Cuddalore	21.4	36	1.6	-94	18.3	-35
Dharmapuri	41.5	163	0.8	-95	0.9	-96
Dindigul	8.2	-26	1.0	-92	4.1	-71
Erode	14.5	110	0.0	-100	0.2	-98
Kanchipuram	16.2	-36	3.1	-90	13.5	-64
Kanyakumari	0.5	-97	3.6	-80	0.5	-97
Karikal	9.5	-16	0.0	-100	7.8	-45
Karur	22.9	295	0.0	-100	0.0	-100
Krishnagiri	65.7	301	0.0	-100	4.8	-78
Madurai	14.1	1	0.0	-100	1.5	-91
Nagapattinam	3.0	-78	7.2	-58	25.0	22
Namakkal	21.7	55	1.5	-92	7.4	-67
Nilgiris	35.9	-28	8.8	-80	15.6	-65
Perambalur	65.5	536	0.0	-100	0.5	-97
Puducherry	0.2	-99	0.7	-98	77.2	148
Pudukottai	10.1	-6	5.0	-75	11.0	-51
Ramanathapuram	6.8	-5	1.3	-78	0.0	-100
Salem	50.2	195	1.0	-96	12.6	-52
Sivaganga	5.7	-59	7.7	-63	16.8	6
Thanjavur	16.6	21	1.0	-93	3.7	-84
Theni	8.8	46	2.2	-66	2.6	-68
Tirunelveli	8.2	19	0.2	-97	0.6	-88
Tirupur	3.2	-25	0.2	-97	6.2	2
Tiruvallur	9.9	-58	3.9	-85	3.8	-88
Tiruvannamalai	42.3	102	0.0	-100	6.0	-81
Tiruvarur	13.4	6	0.0	-100	1.4	-93
Toothukudi	9.8	151	0.0	-100	0.3	-93
Trichy	32.5	277	0.1	-99	5.3	-62
Vellore	47.6	108	0.3	-99	4.8	-84
Villupuram	17.6	-23	2.1	-90	16.2	-41
Virudhunagar	18.4	254	0.0	-100	0.0	-100
Andhra Pradesh						

Coastal Andhra Pradesh						
East Godavari	68.8	65	26.3	-42	3.3	-93
Guntur	35.9	2	2.8	-90	1.1	-97
Krishna	34.7	-29	4.3	-89	6.4	-87
Nellore	12.6	-29	0.0	-100	2.0	-91
Prakasam	15.8	-30	1.4	-91	1.2	-94
Sirkakulam	43.7	0	21.6	-51	14.1	-70
Visakhapatnam	49.1	24	25.1	-32	15.0	-67
Vizianagram	24.8	-41	21.1	-40	15.4	-66
West Godavari	52.6	7	14.6	-74	7.6	-87
Rayalaseema						
Anantapur	47.0	205	0.7	-95	0.6	-96
Chittoor	66.1	244	0.5	-98	1.4	-94
Cuddapah	73.5	217	0.4	-98	0.0	-100
Kurnool	49.1	66	3.8	-85	5.5	-81
Telangana						
Adilabad	68.1	-10	37.7	-44	4.4	-94
Hyderabad	56.7	19	12.7	-69	0.7	-98
Karimnagar	77.9	29	39.8	-28	10.6	-81
Khammam	48.2	-35	37.0	-37	2.2	-97
Mehabubnagar	47.8	11	5.6	-82	5.8	-86
Medak	68.3	14	12.5	-73	5.4	-90
Nalgonda	39.0	8	3.8	-86	0.5	-99
Nizamabad	115.6	54	24.1	-63	12.0	-83
Rangareddy	75.9	62	13.5	-60	4.6	-90
Warangal	52.3	-13	32.1	-39	5.5	-91

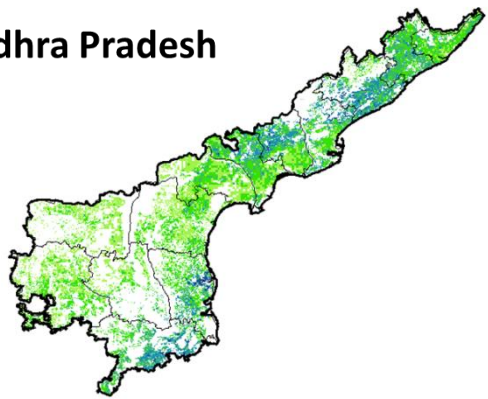
Legends

	(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

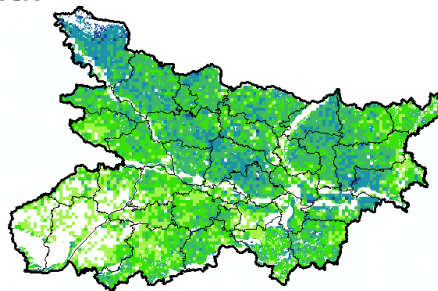
**NOAA/AVHRR NDVI COMPOSITE MAPS FOR THE WEEK ENDING ON
18th August 2016 FOR DIFFERENT STATES**

Andhra Pradesh



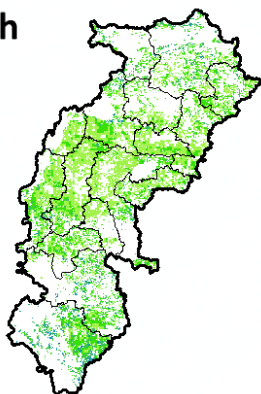
Agriculture vigour is moderate over central part whereas northern and southern coastal parts show good NDVI in the state of Andhra Pradesh.

Bihar



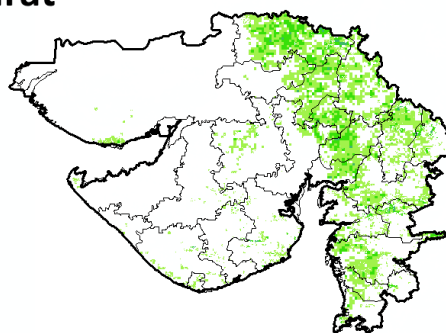
Agriculture vigour is moderate over major parts of Bihar whereas north-western part shows good NDVI values.

Chhattisgarh



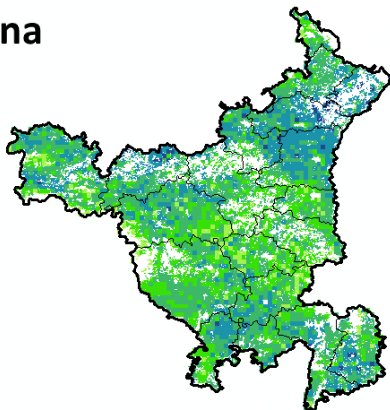
Agriculture vigour is moderate in the state of Chhattisgarh.

Gujarat



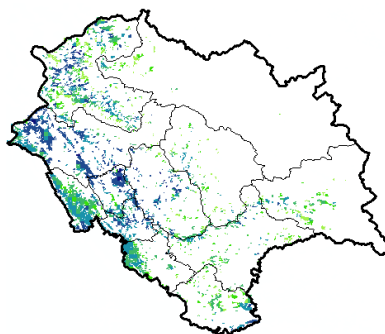
Moderate NDVI values are observed in patches in Saurashtra and Gujrat region.

Haryana



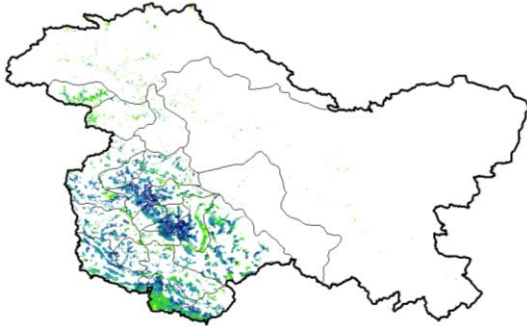
Agriculture vigour is moderate over central region whereas, good agriculture vigour is observed over patches in northern, western and southern regions of the state.

Himachal Pradesh



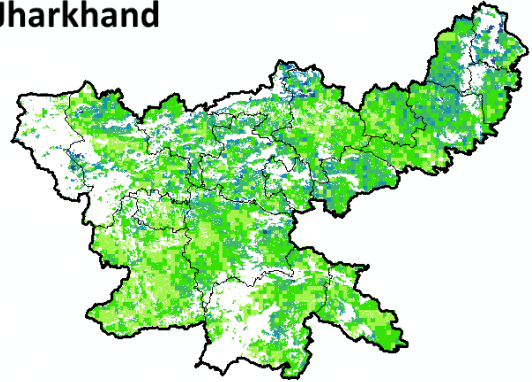
Agriculture vigour is good over entire state of Himachal Pradesh.

Jammu & Kashmir



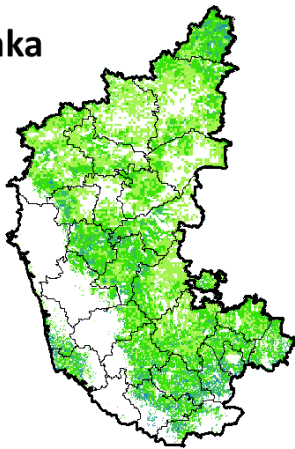
Agriculture vigour is good over central part of Jammu & Kashmir, whereas the remaining region shows moderate NDVI.

Jharkhand



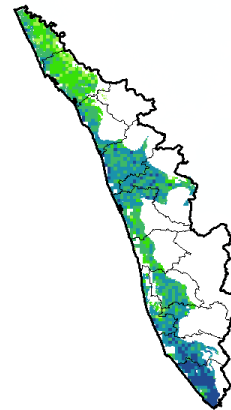
Agriculture vigour is moderate over entire state of Jharkhand.

Karnataka



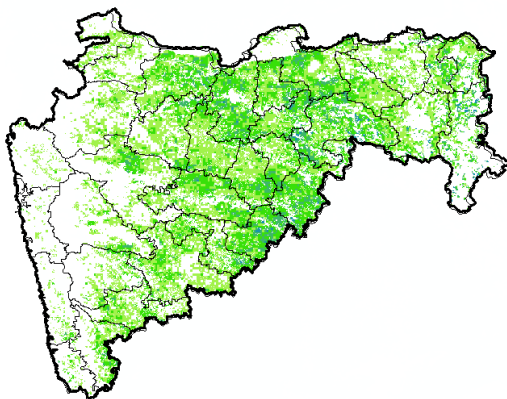
Agriculture vigour is moderate over entire state of Karnataka.

Kerala



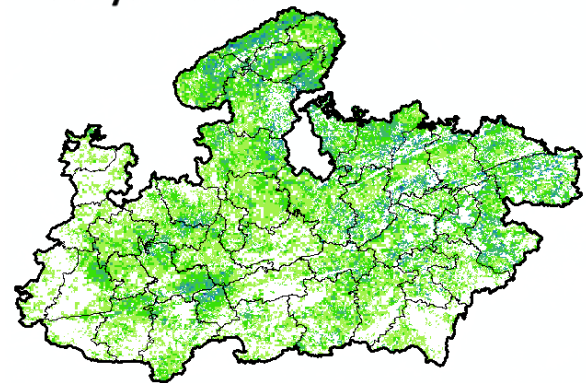
Agriculture vigour is good over entire state of Kerala except northern part which shows moderate NDVI values.

Maharashtra



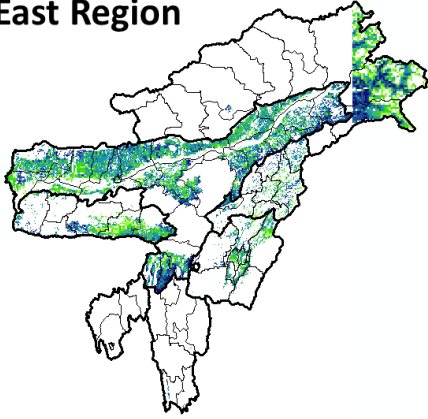
Agricultural vigour is moderate over entire state of Maharashtra.

Madhya Pradesh



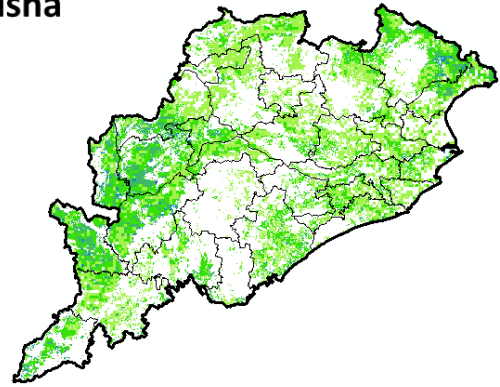
Agriculture vigour shows moderate values of NDVI over entire state of Madhya Pradesh.

North East Region



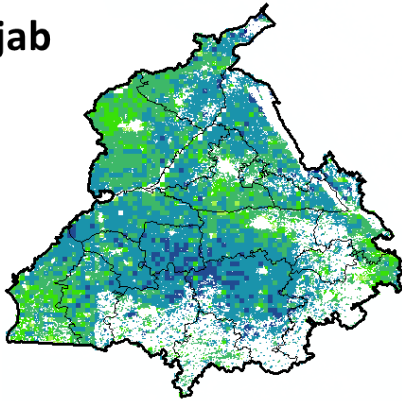
Agriculture vigour is good over north-east states of country.

Odisha



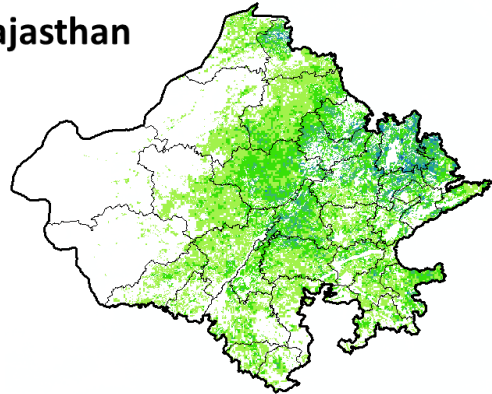
Agricultural vigour is moderate over entire state of Odisha.

Punjab



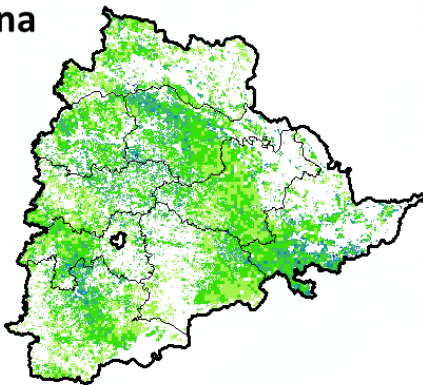
Agricultural vigour is good over the entire state of Punjab whereas northern region shows patches of moderate NDVI.

Rajasthan



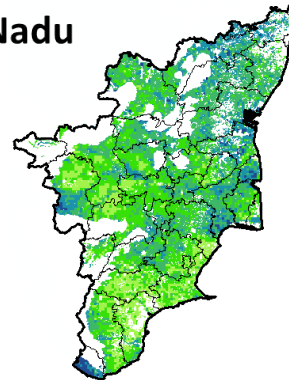
Agriculture vigour is moderate over the entire state of Rajasthan.

Telangana

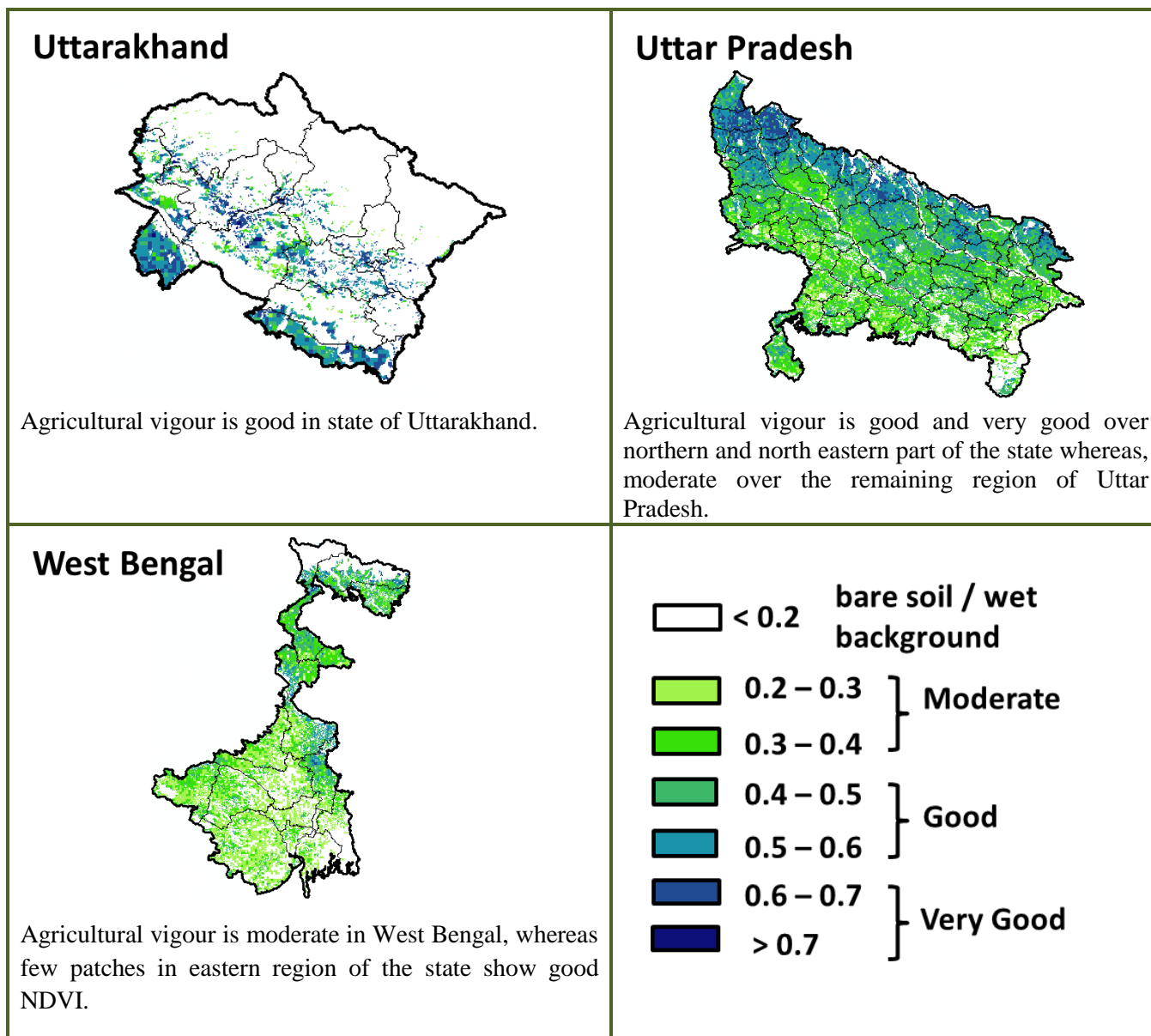


Agriculture vigour is moderate over entire state of Telangana.

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**
Sali rice: Ranjit, Bahadur, Satyaranjan, Basundhara, Kushal, Mahsuri, Bhogali, Rangilee, Ketekijoha. Satyaranjan and Basundhara (in double cropping areas having crop duration of 130-135 days).
 Jalashree, Jalkunwari, Plawan (for flood affected areas).
 Ranjit, Gitesh, Bahadur, Kushal, Piolee (long duration).
 Satyaranjan, Bosundhora, T.T.B.-404, Mulagabharu, Kanaklata, Joymoti, IR-36, IR-64 etc and Disang, Luit, Kapilee, Dikhow (medium duration).
Capsularis jute: JRC 321 and UPC 94.
Olitorious jute: Navin (JRO 524), Basudev(JRO 7835), Baisakhtissa(JRO 632), Bahagi (sel-2) and Tarun.
Okra: Pusa Sawani, Arka Anamika, Parbhdani Kranti.
Ridge gourd: Pusa Nashdar or other local varieties like AAU-1, AAU-2, AAU-3 etc.
Sponge gourd: Pusa Chikni or other local varieties.
Banana: Dwarf Cavendish, Jahaji (Dwarf Cultivar), Cheni Champa, Malbhog, Chenichampa, Malbhog, Barjahaji (Medium Tall cultivars).
Papaya: Washington, Haflong, Rasi, KorgHoney Dew, Co-1, Co-2, Pusa Delicious, Pusa Majesty.
Guava: Alahabad Safeda, Lucknow-49, Chittidar, Seedless.
Fodder crops: Hybrid Napier, Setaria and Guinea.

- Meghalaya**
Sali/ kharif rice: Shasrang -1, Lampnah, IR 64, Ranjit, RCPL 1-412, RCPL 1-410, RCPL 1- 411 & local varieties like Mendri, Manipuri.
Groundnut: ICGS 76, JL 24.

Soybean: JS 335, Bragg, Ankur, Pusa Soubean-1, Local JS 2.

Nagaland

Low land rice: CAU R1, CAU R3, RCM-9 and RCM-11 (Short to medium duration), Gitesh (short duration variety).

Tripura

Groundnut: TAG 24, TG 37A, ICGS 76.

Maize : DMH- 849, 117, HQPM 1, BQPM 9.

West Bengal

Coconut: Eastcoastal, Hazari

Banana : Mortoman, Chapa, Kathali, Singapuri,

Mustard: Varuna, Sita and Bhagirathi.

Jute : Chaitali, Basudev, Naveen, Sonali, Sobujsona, Shyamali etc.

Aman rice: Medium duration MTU-7029, MTU1001, Pratiksha, and for long duration CR1017, CR1018, Cr1019, Sabita.

Paddy : IET-4094, 2233, Ratna, Bikash, Kitish, Sasya-shree, IR-42, Swarna, Mashuri, IET-8002.

Odisha

Maize: Navjot, Shakti, Decan-107, Decan-109,

Hybrid: Megan-G, Megan, MM-1107, Highshell, Prabal, Proagro 4643, Bio9681, Pinnacle, DMH-7705,

Rice: *Early:* Jogesh, Siddant, Hazaridhan, Mandakini, Jyotirmayee, Virendra

Medium: Pratikshya, Manaswini, Tapaswini MAS, Konark, Surendra, Kharavela, Naveen, Abhisek

Late: Barsadhan, Ranidhan, Pooja, Mrinalini, RGL-2837, Moti, Ketakijoha, Padmini, Kanchana, Mahanadi, Jagabandhu

Hybrid varieties: CR Dhan 701, NK 5251, JKRH 401, Ajay, Rajalaxmi, Arize 6444G

Cotton: Suraj, Supriya, B.S.-30, B.S.-279, Surabhi, Sujata

Hybrid: Bunny, Diana, Bhaskra, Namaskara, Tulasi, Sigma, Chiruta, Takat

Mango: Grow Baiganpalli, Totapuri, Bombay green, Suvarnarekha, Neelam, Himsagar,, Langra, Dusheri, Amrapalli, Mallika, Ratna, Ramkella, Rummani, Sindhu, Alphanso and Keshar, etc.

Ragi: Divyasingh, AKP-2, AKP-3, AKP-7, Godavari, Neelachal, Bhairavi, Shubhra, and Chilika.

Banana: Hampa, Patakura, Bantal, Robusta and Kabuli etc.

Bihar

Kharif onion: Agri Found Dark Red (ADR), N-53, Bhima super, Arka kalia.

Turmeric: Rajendra Sonia and Rajendra Sonali.

Ginger : Maran and Nadia.

Kharif Paddy: Seeta, Santosh, Saroj, Rajshri, Prabhat, Rajendra suvasni, Rajendra kasturi and Rajendra bhagwati.

Jute : JRO 8432, JRO 66, JRO 128 JRO 204 and JRO 66.

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

Jharkhand

Rice: Birsa Dhan 108, Birsa Vikash Dhan 109, 110, 111, Sahbhagi and Vandana, IR 36, 64, Lalat, Naveen, Sahbhagi, BR 10, Kanak, Rajendra Dhan 202, Sughanda, Birsa Vikash Sugandh Dhan 2, Birsa Vikash Dhan 203.

Maize: Suwan Composite 1 (100 days) and hybrid variety- HQPM 1 (100 days), Composite variety- Birsa Makka 1 (80-85 days) and hybrid variety- Kanchan (80-85 days), Birsa vikash Makka 2 (70-80 Days).

Red gram: Birsa Arhar (210 days), Bahar (240 Days) and ICPH 2671 (210 days).

Groundnut: AK 12-24, Birsa moongfali 1, 2, 3 and bold type – Birsa bold (BAU 13).

Urad: T 9, Pant U 19, 30, 35 and Birsa urd 1.

Moong: Pusa Vishal, S M L 668, K 885, P S 16, Pant Moong 2 and P D M 11.

Sweet potato: Birsa sakarkand-1 and Sri Bhadra.

Jammu & Kashmir

Paddy (Sub Tropical Zone): Basmati370, Ranbir Basmati, China-1039, K-39, K-343, Giza-1.

Maize: Vivek-25, Vivek QOM-9 HM-5 and HQPM-1.

Uttarakhand

Sugarcane: Pant 84211, Co-238, Co-241, Co Pant 3220, COS-8436, COS-88230 etc. and medium to late sown varieties like Co Pant 90223, Co Pant-96219, COS-97222, COS-767, COS-1148, COS-96268 etc.

Okra (Bhabar and Tarai Zone): Uphar, Punjab Padmini, Punjab-1, Punjab-7, Arka, Anamika, Abhay, Parbhani Kranti

Paddy: Sharbati, Pusa 121, Pusa 1, Pusa 44, NDR 359.

Groundnut: TA-64, Chandras, Kaushal, Prakash, Ambar.

Dwarfs variety of paddy: Narendra-118, Narendra-97, Pant Sankar Dhan-1 and Pant Sankar Dhan-10.

Pigeon pea: Pant Arhar-3, Pant Arhar-291, UPAS-120, Pusa-992.

Maize: Tarun, Navin, Kiran, Navjot, Pratap maize-1, Pusa sankul-3 & 4 Kg seed of chilly crop.

Soyabean: P.S.-1042, P.S.-1241, P.S.-1347, P.S.-1225, P.S.-19.

Groundnut: TA-64, Chandras, Kaushal, Prakash, Ambar.

Okra: Uphar, Punjab Padmini, Punjab-1, Punjab-7, Arka, Anamika, Abhay, Parbhani Kranti.

Radish:PushaChetki.

Himachal Pradesh

Cauliflower: snowball and Giant snowball.

Radish:Japanese white, Chinese pink and mino early white

Turnip: PTWG-1

Carrot:Pusakesar

Fenugreek :I.C. 74, kasoori.

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, Narendra sankar 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, Narendra sugandh or Narendra usar dhan-1, Narendra usar dhan-2, C.L.R.-10, or Narendra usar 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, paras manak, UPAS 120.

Moong: Type-27, 56

West Uttar Pradesh

Ladies finger:VRO-6, VRO-5.

Sugarcane: ko.sha 88230, ko.sha 8436, ko 0238, ko.sha 07250 or U.P. 0512.

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

Onion: pusa red, pusa white.

Sugarcane:The mid and late maturing varieties of sugarcane: CO Pant 211, Co Sa 687 and Co Sa 8436.

The varieties recommended in areas with poor water drainage: B.O.54 and B.O.91.

Baby corn: M.H.-4.

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 sugandha-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

Delhi

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

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

Radish:Japanese White, Hill queen, French Radish;

Spinach: PusaBharti.

Amaranths: PusalalChaulai, PusaKiran.

Ladyfinger: Pusa A-4.

Radish:Japanese White, Hill queen, French Radish.

Spinach:All Green, PusaBharti;

Fenugreek:PusaKasuri;

Coriander:PantHaritama, Hybrids.

Turnip:Pusa Swati, Local Red variety.

Bottle Gourd- Pusa Naveen, PusaSamridhi

Bitter Gourd- PusaVisesh, Pusa-2 mosumi

Pumpkin- PusaVisvash, PusaVikash

Ridge Gourd- PusaChikni

Cucumber- PusaUday, PusaBarkha

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)

West Rajasthan

Green fodder: Jwar/Bajra mixed with guar. popular varieties for Jwar are Raj Chari-1, Raj Chari -2, MP Chari, SSG 59-3, MSFH-3, MSFH-4 and Hara Sona; for Bajra: Raj Bajra Chari-2, Co -8, AvikaBajra Chari-19 and Giant bajra; for Guar: RGC-986, Bundel guar-1, Bundel Guar-2 and Bundel Guar-3.

Pearl millet: R.H.B.-177, ICTP-8203, RHB-121, RHB-173, RHB-154, GHB-538, HHB-67(improved varieties)

Bhindi: Ark Anamika, varshauphar, Parbhanikranti, pusamakhmali.

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

Sorghum: Girnar-2, RG-425, HNG-10, GG-20, TG-37-A, TG-39.

Narma cotton:R.S.T.-9, R.S.-810, R.S.-2013, Bikanerinarma, R.S.875, MaruVikas(Raj. H.H.16)

BT Narma cotton:M.R.C.H.6304, M.R.C.H.6025, R.C.H.650, Bioseed-6588, Bioseed-6488, R.C.H.-314, J.K.C.H. 1947, M.R.C.-7017 (BG-II) or N.E.C.H.6.

Gujarat

Pigeonpea:BDN-2, Vaishali, GTH-1, GT-100.

Sunflower:EC-68414, Modern GS-1, 2 & 3.

Sesame:Gujarat sesame -1, 2, 3 & 4.

Castor:GAUCH-1, GCH-2, GCH-4, 5, 6 & GCH-7.

Sorghum (fodder): CSH-6, GFS-4, GFS-5, GAFS-11.

Madhya Pradesh

Cauliflower: Golden Anker and Pusa Mukta.

Cabbage: Pusa Synthetic ,Pusa Subhadra and Pusa Him Jyoti .

Radish: Pusa Kesar and Pusa Meghali.

Chhattisgarh

Tomato: Pusa early dwarf, Sweet 72, Pusa rubi, Pusa Gurab, Mangala, Naveen,Laxmi 5005 & NS 815.

Brinjal:Punjab Shadabahr, K S 331, P H 5, P H 6 ,KS224 ,A R B H -543.

Karnataka

Ragi: Indaf-5, Indaf-9, and GPU-28.MR-01,MR-06 & ML-365.

Maize: Hybrids -DMH-2, Arjun and Private hybrids, GH-0727, Renuka (G-25).

Andhra Pradesh

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

Bajra:ICTP 8203,PBH 3

Korra:Prasad, Krishnadevaraya, Narashimharaya, Srilakshmi, Surya nandi

Cowpea: C 152 GC3 CO-4 CO-5

Sunflower:NDSH1 KBSH1 KBSH 44 DRSH 1

Green gram:LGG 407 LGG 450 LGG 460 MGG 295 ML 267

Field bean:TFB-1 TFB-5

Tamil Nadu

Samba rice:CR 1009 and ADT 50.

Telangana

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